MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
EARLY INTERVENTION OPERATIONAL STANDARDS

Appendix C

Health and Safety Resources

Health and Safety Tips

Latex Allergies

Latex Reaction in Child Care

Child care food and health care workers daily use rubber gloves or other products made with latex. Latex (the sap from the Hevea brasiliensis tree) is used to make “rubber” gloves. Some people react to latex products. The reaction may be mild or severe. Some people may have watery eyes or skin irritation on the hands. Others may have severe allergy like breathing difficulty or collapse.

How do you know if you will react or if the children in your care will react to latex?

Workers may not know they will have a reaction to latex until they are exposed and have symptoms. The reaction may be mistaken for a skin reaction from frequent handwashing or a mild “cold” (watery eyes, runny nose, sneeze or cough). Parents of infants or other young children may not know their child will react to latex. When a latex reaction is suspected the person needs a medical evaluation. Employers should urge workers to seek medical evaluation and to receive medical guidance about work task. When children are suspected of having a latex reaction, child care providers should work with parents to secure medical evaluation and guidance for the child care setting.

What does a medical evaluation for latex reaction mean?

The health care provider will ask many questions about why a person suspects they have a latex reaction. Questions about the type of reaction, frequency of reaction, and exposure to latex are typical. The health care provider will examine any skin reactions. You may have blood test to determine the level of latex sensitivity. Your health care provider may ask you to see a medical specialist depending on your reaction. Written guidelines and information should be given to you to assist you in determining work task to limit or prevent exposure to latex.

What should workers with a known latex reaction do?

People with latex reaction should *wear a medical identification bracelet* or other device stating the latex sensitivity. Workers sensitive to latex should obtain guidelines from their health care provider about appropriate products to use when doing child care task. Guidelines for workers should be shared with the child care employer and job task reviewed. Gloves must be made of vinyl or some other substance that does not contain or cross-react with latex should be available at diaper changing areas, first aid kits, emergency supplies, food service, and in play items or spaces. Other common supplies that contain latex, such as rubber bands, should also be removed from the environment.[2] Workers with latex reaction should *read the label* of all products suspected of containing latex. If you have a known or suspected latex reaction do not use latex gloves. The workplace should provide powder-free gloves with reduced protein

content for co-workers. The latex proteins, that cause allergies, attach to the powder used in gloves. This powder can become airborne when the gloves are removed and be inhaled by those with latex allergies. For this reason, non-latex synthetic gloves should be available for every worker's use.

What if a child has a latex reaction?

All child care providers within the facility need to be aware of any child with latex reaction. *Latex products should not be used* for these children. Child care providers should work with parents and follow the child's medical guidelines for using non-latex products. Gloves must be made of vinyl or some other substance that does not contain or cross-react with latex should be available at diaper changing areas, first aid kits, emergency supplies, food service, and in play items or spaces. Other common supplies that contain latex, such as rubber bands, should also be removed from the environment. [2]

Is latex reaction really a serious concern?

The latex reaction usually is seen as skin irritation to the hands or mild symptoms like runny nose and watering eyes. But, for some people the reaction to latex can be life threatening. Workers and older children with latex allergy should wear identification noting the latex sensitivity. It is not practical or safe for young children to wear medical identification—so parents and child care workers must be diligent about notifying all care providers of the child's latex sensitivity.

Where can I learn more about latex sensitivity?

Ask you public library to help you find appropriate information sources. Your health care provider should have written information for patients with latex reactions. The U.S. government has several agencies that oversee latex production and sales.

Resources

Consumer Product Safety Commission, Office of Information and Public Affairs, Washington, D.C., 20207. Telephone voice 800-638-2772, TTY 800-638-8270. Internet: www.cpsc.gov

Food and Drug Administration, HFI-40, Rockville, MD 20857. Telephone 1-888-463-6332. Email: webmail@oc.fda.gov. Internet: www.fda.gov

National Institute of Occupational Safety and Health, Centers for Disease Control and Prevention, Telephone 1-800-356-4674. Email: pubstaft@cdc.gov. Internet: http://www.cdc.gov/niosh/homepage.html.

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[1] Preventing Allergic Reactions to Natural Rubber Latex in the Workplace, National Institute of Occupational Safety and Health, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, Publication No. 97-135, July 1998.

[2] American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care. Caring For Our Children National Health and Safety Performance Standards: Guidelines for Out-Of-Home Child Care Programs Second Edition. 2002. pg. 95.

[3] Latex Allergy, A Prevention Guide, National Institute of Occupational Safety and Health, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, Publication No. 98-113, Feb. 1999.

This document was prepared by the National Resource Center for Health and Safety in Child Care
For any further questions please contact us at 1-800-598-5437 or natl.child.res.ctr@uchsc.edu

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
EARLY INTERVENTION SERVICES

Infectious Disease Control and Sanitation Requirements

I. Infectious Disease

A. The program ensures that staff, volunteers and children wash their hands with liquid soap and running water and dry them using disposable towels at least at the following times:

1. before eating or handling food or food preparation materials
2. after diapering, toilet training, and toileting
3. after coming into contact with bodily fluids and discharges
4. after handling pets or other animals or their equipment
5. before and after administering medication
6. after cleaning.

B. The following specified equipment, items or surfaces are washed with soap and water and disinfectant using the following schedule or more frequently:

After each use:

1. toilet training chairs which have first been emptied into a toilet
2. sinks and faucets used for hand washing after sink is used for rinsing a toilet training chair
3. diapering surfaces
4. toys mouthed by children mops used for cleaning body fluids
5. bibs
6. thermometers.

At least daily:

1. toilets and toilet seats
2. containers, including lids, used to hod soiled diapers
3. sinks and sink faucets
4. drinking fountains
5. water table and water play equipment
6. play tables
7. smooth surfaced non-porous floors
8. mops used for cleaning
9. cloth washcloths and towels

II. Sanitation and Hygiene Procedures for Diapering and Toileting

1. Each child's diaper is changed when wet or soiled.
2. A supply of clean, dry diapers is maintained adequate to meet the needs of children.
3. A disposable covering is used on changing surfaces which is of adequate size to prevent the child from coming in contact with changing surface and changed after each child has been diapered and the diaper is disposed of in a closed container.
4. Running water is adjacent to diapering area for hand washing (adaptations for running water may be acceptable).
5. Each child is washed and dried with individual washing materials during each diaper change. After changing, child's hands are washed with liquid soap and running water; hands are dried with individual or disposable towels.
6. Changing surface is washed and disinfected after each use.
7. Soiled disposable diapers are placed in a closed container that is lined with a leakproof disposable lining. These diapers are removed from the facility daily or more frequently as necessary.
8. Soiled non-disposable diapers and soiled clothing are place in an individual sealed, plastic container labeled with the child's name and returned to child's caregiver at the end of the day.
9. Staff wash their hands with liquid soap and running water and dry hands with individual or disposable towels after changing child's diaper or helping child with toileting.
10. Changing surface is smooth, intact, impervious to water and easily cleaned.
11. Diapering areas and hand washing facilities are separate from areas used for food preparation and food service.
12. A common changing table or diapering surface is not used for any other purpose.

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
IMMUNIZATION PROGRAM

ATTENTION:
PROOF OF IMMUNITY FOR CHILD CARE STAFF EFFECTIVE IN 2001

In accordance with OCCS regulations, all child care staff must provide proof of immunity to measles mumps, and rubella. **Effective September 2001, the criteria for adequate proof of immunity** are as follows:

- For all individuals born **in or after 1957**, regardless of country of birth:
  - 2 doses of MMR vaccine (or 2 doses of a measles-containing vaccine and 1 dose each of mumps and rubella vaccines); or
  - Laboratory tests to confirm immunity to measles, mumps and rubella.
- For individuals born **before 1957 in the U.S.**:
  - These individuals are considered immune to measles, mumps, and rubella and do not need any further documentation. However, it is recommended that women who could become pregnant receive 1 dose of MMR vaccine regardless of age.
- For individuals born **before 1957 in countries other than the U.S.**:
  - 1 dose of MMR; or
  - Laboratory tests to confirm immunity to measles, mumps and rubella.

We suggest that your employees have their health care providers complete the enclosed *Certificate of Immunization* to document immunity to measles, mumps, and rubella. Please review the enclosed materials, which describe how to document immunity. If you have any questions, call the Massachusetts Immunization Program at (617) 983-6800.

ADDITIONAL IMMUNIZATION RECOMMENDATIONS FOR STAFF

The Massachusetts Immunization Program also *recommends*:

1) all staff receive a Td booster every 10 years;
2) all staff who do not have a reliable history of chickenpox disease (personal recall, physician diagnosis, or laboratory test) receive varicella vaccine; and
3) pertinent staff (those whose responsibilities may include first aid) be offered hepatitis B vaccine.

Immunizations Required for All Child Care Staff

---- Effective September 2001 ----

	Born in or after 1957, regardless of country of birth	Born before 1957, in the U.S.*	Born before 1957, in countries other than the U.S.
Measles	2 doses	N/A	1 dose
Mumps	1 dose	N/A	1 dose
Rubella	1 dose	N/A	1 dose

* It is recommended that women who could become pregnant receive 1 dose of MMR vaccine, regardless of age.

Bureau of Communicable Disease Control

- HIV/AIDS Surveillance
- Epidemiology & Immunization
- Tuberculosis Prevention & Control
- STD Prevention
- Refugee & Immigrant Health

Related Sites

- Centers for Disease Control

Contact Information

Division of Epidemiology and Immunization
State Laboratory Institute
305 South Street
Jamaica Plain, MA 02130

Robert Goldstein, MPH
Director

Tel. (617) 983-6800
Fax (617) 983-6840

Public Health Fact Sheet - Adult Immunization

Why do adults need to be immunized?
Many infections preventable with vaccines are more dangerous in adults than in children. Many adults think they are too old for immunization, but they are wrong. Adults should ask their doctor or nurse about tetanus-diphtheria vaccine (Td), pneumococcal vaccine, and annual flu shots, especially at visits on or around the 50th and 65th birthdays. Some adults will need other vaccines because of their jobs, travel plans or health problems.

Tetanus and Diphtheria
Tetanus (lockjaw) kills 1 of every 3 people who get it. Germs that make tetanus toxin (poison) cause tetanus after entering the body, usually through a cut or scrape. The cut does not have to show any sign of infection and does not have to be large or deep to lead to tetanus.
Diphtheria is dangerous; 1 of every 10 people who get it dies from it. The signs of diphtheria include fever and sore throat with swelling, causing swallowing problems and suffocation. It is rare in the U.S. because so many people have been vaccinated, but it is still common in other parts of the world.
Tetanus-Diphtheria Vaccine (Td)- Tetanus and diphtheria vaccines are usually given as one shot called Td. Anyone who has never had Td should start with a series of 3 shots. Everyone needs a booster shot every 10 years. A booster may be given sooner if a person gets certain kinds of wounds.

Flu (Influenza)
Flu is a very contagious disease caused by influenza viruses. Signs include sudden high fever, muscle ache, sore throat and cough. Most people who catch it get well within a week, but flu sometimes leads to pneumonia, which can be fatal. People at high risk for pneumonia should get a flu shot every year. They include anyone 50 years old or older, residents of long-term care facilities, people of any age who have chronic medical problems (heart or lung disease, asthma, diabetes, etc.), pregnant women, and people whose immune systems have been weakened (by cancer, AIDS, or other cause). People who work or live with a high-risk person should also get a flu shot so they don't spread the flu. People who just want to avoid the flu can also get the shot. A new flu shot is needed each year. The best time to get it is in the fall, but it's not too late to get it later, even after December. Flu vaccine is made from killed viruses so it cannot give you the flu.

Pneumococcal Disease
Pneumococcal disease is a disease that is caused by bacteria (germs) that can infect the lungs (pneumonia), the blood (bacteremia), and the membrane that covers the brain (meningitis). People 65 years old and older, people of any age with certain medical conditions, and people with weakened immune systems should get pneumococcal vaccine. Most people only need one dose, which can safely be given at the same time as a flu shot or at any other time during the year. Some people may need a booster shot, so ask your doctor or nurse.

Hepatitis B
Hepatitis B is a disease caused by a virus that can damage the liver. Symptoms include flu-like illness, extreme tiredness and jaundice (yellowing of light skin and the whites of the eyes), but often the disease occurs without noticeable symptoms. This virus can cause chronic hepatitis, which can be fatal. Health care workers, people with multiple sex partners, IV drug users, sexual partners and household members of

hepatitis B carriers, and anyone else likely to have contact with infected blood or body fluids should get the vaccine. People who visit countries where hepatitis B is common should also get the vaccine. Three doses are needed to protect against hepatitis B.

Measles, Mumps and Rubella

Measles is caused by a virus and its signs include rash, fever, sore throat, dry cough, and runny nose. Ear infections, pneumonia, swelling of the brain, and death can all result from measles. The risk of death from measles is highest among infants and adults. Many adults born after 1956 never had measles (but may think they did) and never got the vaccine.

Mumps is caused by a virus and its signs include swelling of the salivary (spit) glands. Mumps is more common in children than in adults, but it is more likely to cause serious problems in adults. These problems can include swelling of and damage to the testicles, ovaries, pancreas, thyroid, kidneys, heart, joints, or the thin membrane that covers the brain and spinal cord.

Rubella is caused by a virus and its signs include low fever, joint pain, and rash in some people. Rubella is usually a mild disease in both children and adults, but it can cause severe birth defects or miscarriage if a woman gets rubella while pregnant.

Measles, Mumps and Rubella Vaccine (MMR) - Measles, mumps and rubella vaccines are usually combined in one shot called MMR. People born after 1956 need 2 shots of MMR, especially if they are health care workers, people traveling overseas, college students or persons living in institutional settings, such as group homes. These people are at higher risk of catching and spreading measles. Adults born in the U.S. before 1957 are usually considered immune, but they should get one dose of MMR if they are women who could become pregnant, health care workers, or college students. Women who are already pregnant should not be vaccinated until after the baby is born. One dose of MMR is also recommended for adults born outside of the U.S., regardless of year of birth.

Varicella (Chickenpox)

Chickenpox is caused by a virus. The symptoms include fever, cough, and rash that may become blisters that crust over. Adults, pregnant women, and people with weak immune systems have more severe disease and are at higher risk for complications such as pneumonia and infections of the brain, kidneys and liver. Adults who have not had chicken pox, especially child care and health care workers, and people living with people with weak immune systems, should be vaccinated. People 13 years old or older need 2 doses of varicella vaccine.

Travel Vaccinations

There are a number of vaccines that are not routine for adults, but are recommended for travel to certain areas. These include hepatitis A, typhoid, yellow fever and Japanese encephalitis vaccines. To find out if you need shots for travel, contact a doctor, board of health, or the CDC Travel Information website at http://www.cdc.gov/travel, or call 1-877-394-8747, at least 6 weeks before leaving the country.

Where can you get more information?

- Your doctor, nurse or clinic or your local board of health (listed in the phone book under local government).
- The Massachusetts Department of Public Health Immunization Program (617) 983-6800 or toll-free at

1-888-658-2850, or at a MDPH Regional Office below, or on the MDPH Website at http://www.state.ma.us/dph/.
Northeast Regional Office, Tewksbury (978) 851-7261

Central Regional Office, West Boylston (508) 792-7880

Southeast Regional Office, Lakeville (508) 947-1231
Metro/Boston* Regional Office, Jamaica Plain (617) 983-6860
Western Regional Office, Amherst (413) 545-6600

*Boston providers and residents my also call the Boston Public Health Commission at (617) 534-5611.

CDC National Immunization Information Hotline:

- English: 1-800-232-2522 or Spanish: 1-800-232-0233 (Mon – Fri, 8am – 1pm)
- TTY: 1-800-2437889 (Mon – Fri, 10am – 10pm)

June 2002

PUBLIC HEALTH FACT SHEET

Measles

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

What is measles?

Measles is a very contagious disease that usually lasts a week or two. Measles looks and feels like a cold at first. A cough, high fever, runny nose, and red, watery eyes are common. A few days later, a red, blotchy rash starts on the face, then spreads to the rest of the body.

Is measles dangerous?

Yes. Measles often causes ear infections and pneumonia. Deafness, blindness, seizure disorders and other brain diseases stemming from measles are less common. Measles can also cause swelling of the brain and death, although this is rare in the U.S. Measles is most dangerous for infants, pregnant women, and people with weakened immune systems.

How is measles spread?

Measles is more contagious than almost any other disease. The virus that causes measles lives in the nose and throat and is sprayed into the air when an infected person sneezes, coughs or talks, and can stay in the air for up to 2 hours. Other people nearby can then inhale the virus. Touching tissues or sharing a cup used by someone who has measles can also spread the virus. People with measles can spread the disease starting 4 days before until 4 days after the rash begins. The first symptoms appear 10–14 days after a person is exposed.

Who gets measles?

- Anyone who never had measles and has never been vaccinated.
- Babies younger than 12 months old, because they are too young to be vaccinated.
- Adults who were vaccinated before 1968, because some early vaccines did not give lasting protection.

How is measles diagnosed?

Because measles can look like other diseases that cause a rash, the only sure test for measles is a blood test.

How can you prevent measles?

- Protect your children by having them vaccinated when they are 12–15 months old, and again when they are about to enter kindergarten. Measles vaccine is usually given in a shot called MMR, which protects against mumps and rubella as well as measles. There are now many fewer cases of these three diseases because children get MMR vaccine.
- State regulations require certain groups to be vaccinated against measles. Kindergarten, 7th grade and college students must have proof of at least two doses of live measles vaccine, or blood test results proving they are immune, before they enroll. Some health care workers, and all children in licensed day care or preschool who are 15 months and older, are required to have one dose of MMR vaccine.
- If you have been exposed to measles, talk to your doctor or nurse right away to see if you need a vaccination. If you get the vaccine less than 3 days (72 hours) after being exposed, it will help protect you against measles. People who cannot be vaccinated can be treated with immune globulin (IG) up to 6 days after exposure. IG may not prevent measles but it does make the disease milder.

- People with measles should be kept away from people who are not immune until they are well again. State regulations require anyone who catches measles to be isolated for 4 days after the rash appears. That means they must be kept away from public places like day care centers, school and work.

Is MMR vaccine safe?

Yes, it is safe for most people. However, a vaccine, like any medicine, is capable of causing problems like fever, mild rash, temporary pain or stiffness in the joints, and allergic reactions. More severe problems are very rare. Getting MMR vaccine is much safer than getting measles, and most people do not have any problems with it.

Who should not get MMR vaccine?

- People who have serious allergies to gelatin, the drug neomycin, or a previous dose of the vaccine.
- Pregnant women should not get MMR vaccine until after they deliver their babies.
- People with cancer, HIV, or other problems that weaken the immune system should check with their doctor or nurse before being vaccinated.
- People who have recently had a transfusion or were given other blood products should check with their doctor or nurse before being vaccinated.
- People with high fevers should not be vaccinated until after the fever and other symptoms are gone.

Should health care workers be extra careful about measles?

Yes. Health care workers who are not immune to measles can pick up the virus and spread it to their patients, who might then become dangerously ill. That is why it is recommended that some health care workers who never had measles and cannot prove that they were vaccinated must stay out of work from the 5th day through the 21st day after being exposed to measles or at least 4 days after the rash appears. Health care workers born in 1957 or later who have direct patient contact should have proof of two doses of measles vaccine, with the first received after their first birthday and both doses received after 1967. Older health care workers should think about having at least one dose of measles vaccine to make sure they are immune.

Where can you get more information?

- **Your doctor, nurse or clinic**
- **Your local board of health** (listed in the phone book under local government)
- **The Massachusetts Department of Public Health** (MDPH) Immunization Program at **(617) 983-6800** or toll-free at **1-888-658-2850** or on the MDPH Website at **http://www.state.ma.us/dph/**, or the regional offices of the MDPH Immunization Program:

Central Immunization Office, West Boylston	(508) 792-7880
Metro/Boston* Immunization Office, Jamaica Plain	(617) 983-6860
Northeast Immunization Office, Tewksbury	(978) 851-7261
Southeast Immunization Office, Lakeville	(508) 947-1231
Western Immunization Office, Amherst	(413) 545-6600

*For Boston providers/residents, you may also call the Boston Health Commission at (617) 534-5611.

June 1999

PUBLIC HEALTH FACT SHEET

Mumps

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

What is mumps?

Mumps is a contagious disease caused by a virus. The most common symptom is swollen and tender salivary glands, usually one or both glands near the ear and the back of the jaw. However, as many as 1 in 3 people with mumps do not have enough swelling to show. Other symptoms include fever, headache, stiff neck and loss of appetite. Although mumps is more common in children than in adults, it is more likely to cause serious problems in adults.

Is mumps dangerous?

Mumps is usually a mild disease, especially in young children. However, it causes swollen testicles in 1 out of 4 men, and swollen ovaries in 1 out of 20 women who get mumps. The swelling can cause sterility, although this is very rare.

Mumps sometimes causes swelling in other organs, including the heart and joints, that can lead to permanent damage. The most serious problems caused by mumps are swelling of the thin membrane that covers the brain and spinal cord (meningitis) and swelling of the brain itself (encephalitis). Both of these problems are dangerous, but both are also very rare.

Mumps infection during the first trimester of pregnancy can increase the risk of miscarriage.

How is mumps spread?

The virus that causes mumps lives in the nose, mouth, and throat, and is sprayed into the air when an infected person sneezes, coughs, or talks. Other people nearby can then inhale the virus. Touching a tissue or sharing a cup used by someone with mumps can also spread the virus. People with mumps are contagious from 2 days before until 9 days after their glands start swelling. Symptoms most often appear 2-3 weeks after a person is exposed.

Who gets mumps?

- Anyone who never had mumps and has never been vaccinated.
- Babies younger than 12 months old, because they are too young to be vaccinated.

How is mumps diagnosed?

Mumps is most often diagnosed by its symptoms, but this is not always reliable. There is also a blood test for the disease.

How can you prevent mumps?

- Protect your children by having them vaccinated when they are 12–15 months old, and again when they are about to enter kindergarten. Mumps vaccine is usually given in a shot called MMR, which protects against measles, mumps and rubella. There are now many fewer cases of these three diseases because children get MMR vaccine.

- State regulations require certain groups to be vaccinated against mumps. Kindergarten, 7th grade and college students to have proof of at least two doses of live mumps vaccine, or blood test results proving they are immune, before they enroll. Some health care workers, and all children in licensed day care or preschool who are 15 months and older, are required to have one dose of MMR vaccine.

Is MMR vaccine safe?

Yes, it is safe for most people. However, a vaccine, like any medicine, is capable of causing problems like fever, mild rash, temporary pain or stiffness in the joints, and allergic reactions. More severe problems are very rare. Getting MMR vaccine is much safer than getting measles, and most people do not have any problems with it.

Who should not get MMR vaccine?

- People who have serious allergies to gelatin, the drug neomycin, or previous dose of the vaccine.
- Pregnant women should not get MMR vaccine until after they deliver their babies.
- People with cancer, HIV, or other problems that weaken the immune system should check with their doctor or nurse before being vaccinated.
- People who have recently had a transfusion or were given other blood products should check with their doctor or nurse before being vaccinated.
- People with high fevers should not be vaccinated until after the fever and other symptoms are gone.

Where can you get more information?

- **Your doctor, nurse or health clinic**
- **Your local board of health** (listed in the phone book under local government)
- **The Massachusetts Department of Public Health** (MDPH) Immunization Program at **(617) 983-6800** or toll-free at **1-888-658-2850** or on the MDPH Website at **http://www.state.ma.us/dph/**, or the regional offices of the MDPH Immunization Program:

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June 1999

PUBLIC HEALTH FACT SHEET

Rubella
(German measles)

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

What is rubella?

Rubella (also called German measles) is a very contagious disease caused by a virus. The most common symptoms are mild fever, headache, swelling of the lymph glands (often in the back of the neck), and a rash that lasts about three days. About half of all people who get the disease do not get the rash. Some people get swollen and painful joints, but these symptoms don't last long. The disease can also cause swelling of the brain (encephalitis), but this is very rare.It can cause a rash and other symptoms.

Is rubella dangerous?

Yes, it is very dangerous if a woman gets rubella while she is pregnant. Rubella can cause blindness, heart problems, mental retardation or death in babies before they are born. It can also cause miscarriages. Because of this, all women who want to have children should have their blood tested to make sure that they are immune to rubella even if born before 1957.

How is rubella spread?

The virus that causes rubella lives in the nose and throat and is sprayed into the air when an infected person sneezes, coughs or talks. Other people nearby can then inhale the virus. Touching tissues or sharing a cup used by someone with rubella also spreads the virus. People with rubella can spread the disease starting 7 days before until 7 days after the rash starts. The first symptoms appear about 16–18 days after a person is exposed.

Who gets rubella?

- Anyone who has never had rubella and has never been vaccinated.
- Babies younger than 12 months old, because they are too young to be vaccinated.
- Adults who were vaccinated before 1968, because some early vaccines did not give lasting protection.

How is rubella diagnosed?

Because rubella can look like other diseases that cause a rash, the only sure test for rubella is a blood test.

How can you prevent rubella?

- Protect your children by having them vaccinated when they are 12–15 months old. Rubella vaccine is usually given in a shot called MMR, which protects against mumps and measles as well as rubella. There are now many fewer cases of these three diseases because children get MMR vaccine.
- State regulations require certain groups to be vaccinated against measles. Kindergarten, 7th grade and college students to have proof of at least two doses of live measles vaccine, or blood test results proving they are immune, before they enroll. Some health care workers, and all children in licensed day care or preschool who are 15 months and older, are required to have one dose of MMR vaccine.
- Women who plan to have children and who are not immune should get MMR vaccine at least 3 months before getting pregnant.
- If you are not immune to rubella, you should get MMR vaccine. It will not protect you this time, but it will protect you against measles, mumps and rubella in the future.

- People with rubella should be kept away from people who are not immune until they are well again. State regulations require anyone who catches rubella to be isolated for 7 days after the rash appears. That means they must be kept away from public places like day care centers, school and work.

Is MMR vaccine safe?

Yes, it is safe for most people. However, a vaccine, like any medicine, is capable of causing problems like fever, mild rash, temporary pain or stiffness in the joints, and allergic reactions. More severe problems are very rare. Getting MMR vaccine is much safer than getting measles, and most people do not have any problems with it.

Who should not get MMR vaccine?

- People who have serious allergies to gelatin, the drug neomycin, or a previous dose of the vaccine.
- Pregnant women should not get MMR vaccine until after they deliver their babies.
- People with cancer, HIV, or other problems that weaken the immune system should check with their doctor or nurse before being vaccinated.
- People who have recently had a transfusion or were given other blood products should check with their doctor or nurse before being vaccinated.
- People with high fevers should not be vaccinated until after the fever and other symptoms are gone.

Should health care workers be extra careful about rubella?

Yes. Health care workers who are not immune to rubella can pick up the virus and spread it to their co-workers and patients. The results could be tragic if one of them is pregnant and not immune. That is why it is recommended that some health care workers who have no record of rubella vaccination or whose blood tests show that they are not immune must stay out of work from the 7th day through the 21st day after being exposed to the disease. Health care workers should have proof of immunity to rubella, either through vaccination or a blood test.

Where can you get more information?

- **Your doctor, nurse or clinic**
- **Your local board of health** (listed in the phone book under local government)
- **The Massachusetts Department of Public Health** (MDPH) Immunization Program **(617) 983-6800** or toll-free at **1-888-658-2850** or on the MDPH Website at **http://www.state.ma.us/dph/**, or the regional office of the MDPH immunization program:

Central Immunization Office, West Boylston	(508) 792-7880
Metro/Boston* Immunization Office, Jamaica Plain	(617) 983-6860
Northeast Immunization Office, Tewksbury	(978) 851-7261
Southeast Immunization Office, Lakeville	(508) 947-1231
Western Immunization Office, Amherst	(413) 545-6600

*For Boston providers/residents, you may also call the Boston Health Commission at (617) 534-5611.

June 1999

PUBLIC HEALTH FACT SHEET

Chickenpox
(Varicella)

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

What is chickenpox?

Chickenpox, also called varicella, is caused by a very contagious virus. People with chickenpox get an itchy rash that looks like tiny blisters. It usually starts on the face, stomach, chest or back, and spreads to other parts of the body. A mild fever, tiredness, and slight body discomfort usually come with the rash. Anyone who hasn't had chickenpox already can get it, but it is most common among children under 15 years old. More than 90% of US adults have already had chickenpox.

Is chickenpox dangerous?

Yes, it can be. Chickenpox can lead to severe skin infection, scars, pneumonia,brain damage and death. About 12,000 people are hospitalized for chickenpox each year in the US, and about 100 people die. Serious complications (such as pneumonia) are rare, but are more common in newborns, pregnant women, people with weak immune systems, and adults in general. A person who has had chickenpox can also get a painful rash called shingles years later.

How is chickenpox spread?

Chickenpox is spread from person to person by coughing, sneezing, or touching the rash. People with chickenpox can spread the disease from 1-2 days before symptoms start until all the lesions are crusted over (usually about 5 days). Symptoms usually appear about 2–3 weeks after exposure to the virus. However, people with weak immune systems are contagious longer, usually as long as new blisters keep appearing. Under state regulations, people with chickenpox must stay out of school and work until all their blisters have dried and crusted.

Who gets chickenpox?

- Anyone who has never had chickenpox and has never been vaccinated.
- Babies younger than 12 months old, because they are too young to be vaccinated.

How can you prevent chickenpox?

- Protect your children by having them vaccinated when they are 12-18 months old, or at any age after that if they have never had chickenpox. It is important to make sure susceptible children get vaccinated before their 13th birthday due to an increased risk of complications after this age.
- Adolescents and adults who are not immune to chickenpox, particularly those who are health care workers or who live with someone who has a weakened immune system should be vaccinated. Women who plan to have children and are not immune should also be vaccinated. Adolescents (aged 13 and older) and adults need two doses of varicella vaccine for protection.
- If a person receives chickenpox vaccine within 3 days of being in contact with someone with chickenpox, there is a good chance they won't get sick.
- Some unvaccinated and nonimmune people (such as newborns, pregnant women, and people with weakened immune systems) who become exposed to chickenpox should get a shot of VZIG (instead of vaccine) to lower their chances of severe complications like pneumonia. This shot must be given less than 96 hours (four days) after exposure. VZIG offers only short-term protection, so anyone who gets it will still need to be vaccinated as described above in order to have long-term protection against chickenpox.
- State regulations require certain groups to be vaccinated against chickenpox. Susceptible children attending licensed day care or preschool, and those entering kindergarten, must show proof of receiving 1 dose of varicella vaccine or reliable proof of immunity. Those entering 7th grade must show proof of receiving 2 doses of varicella

vaccine or reliable proof of immunity. A reliable history is defined as 1) physician interpretation of parent/guardian description of chicken-pox; 2) phsyician diagnosis of chickenpox; or 3) serologic proof of immunity.

Should pregnant women worry about chickenpox?

Pregnant women who have already had chickenpox do not need to worry. Women who get chickenpox while they are pregnant are more likely than other adults to develop serious complications: the fetus can also be affected. Babies born to mothers with a current case of chickenpox can develop high fevers and other serious problems.

Pregnant women who have been exposed to somebody with chickenpox should see a doctor **immediately.** Those who are not sure if they had chickenpox as a child can have a blood test to see if they are protected against the virus. If not, they may need to get a shot of VZIG (varicella zoster immune globulin) to lower their chances of severe complications.

Can you get chickenpox more than once?

No. Once you have had chickenpox, you cannot get it again. However, the virus that causes chickenpox stays in your body the rest of your life. Years later it can give you a rash called shingles, which doctors call "herpes zoster." The shingles rash looks like chickenpox, but it usually shows up on only one part of your body and does not spread. Unlike chickenpox, shingles is painful. Children sometimes get shingles, but it is more common among adults. Touching fluid from the shingles rash can spread the virus that causes chickenpox to people who are not immune.

Is varicella vaccine safe?

Yes, it is safe for most people. However, a vaccine, like any medicine, is capable of causing problems like fever, mild rash, temporary pain or stiffness in the joints, and allergic reactions. More severe problems are very rare. About 70–90% of people who get the vaccine are protected from chickenpox. If vaccinated people do get chickenpox, it is usually very mild. They have a milder rash with fewer spots, lower fevers, and get better faster. They can still spread chickenpox to others who are not immune, but those contacts tend to have very mild disease as well.

Who should not get varicella vaccine?

- People who have serious allergies to gelatin, the drug neomycin, or a previous dose of the vaccine.
- Pregnant women should not get varicella vaccine until after they deliver their babies.
- People with cancer, HIV, or other problems that weaken the immune system should check with their doctor or nurse before being vaccinated.
- People who recently had a blood transfusion or were given other blood products should ask their doctor when they may get chickenpox vaccine.
- People with high fevers should not be vaccinated until after the fever and other symptoms are gone.

Where can you get more information?

- **Your doctor, nurse or clinic**
- **Your local board of health** (listed in the phone book under local government)
- **The Massachusetts Department of Public Health** (MDPH) Immunization Program at **(617) 983-6800** or toll-free at **1-888-658-2850**, or on the MDPH Website at **http://www.state.ma.us/dph/,** or the regional offices of the MDPH Immunization Program:

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November 1999

Alfred L. Frechette, M.D., M.P.H.
Commissioner

The Commonwealth of Massachusetts
Department of Public Health
600 Washington Street
Boston 02111

April 21, 1981

ADVISORY LETTER #118

TO: ADMINISTRATORS AND EMPLOYEES OF PUBLIC AND PRIVATE SCHOOLS, COLLEGES, UNIVERSITIES, AND SPECIAL TRAINING PROGRAMS FOR THE MENTALLY RETARDED OR YOUTHFUL OFFENDERS; BOARDS OF HEALTH AND HEALTH DEPARTMENTS

SUBJECT: 1981 AMENDMENT TO LAW REQUIRING SCREENING OF EDUCATIONAL PERSONNEL FOR TUBERCULOSIS, AND ADMINISTRATIVE GUIDELINES

On April 13, 1981, Governor Edward J. King signed into law an important amendment to Massachusetts General Law, Chap. 71, Sec. 55B, which required the examination and certification of all employees of schools, colleges, and other educational institutions to show freedom from tuberculosis in a communicable form. The new law will allow for a reduction in screening and x-ray exposure of educational personnel without loss of public protection, while at the same time resulting in significant cost savings to the Commonwealth and its cities and towns. As a result of action by the Governor to make this an emergency act, the law will have an effective date of April 13, 1981, rather than ninety days hence.

Enclosed are copies of the amended law, Chap. 71, Sec. 55B, and administrative guidelines.

Thomas J. Kearns

Thomas J. Kearns, Director
Division of Tuberculosis Control

Approved:

Alfred L. Frechette M.D.

COMMISSIONER

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF TUBERCULOSIS CONTROL
STATE LAB INSTITUTE
305 SOUTH STREET
JAMAICA PLAIN, MA 02130

Administrative Guidelines for Massachusetts General Law, Chapter 71, Section 55B, as Amended by Chapter 85, Acts of 1981, for Public and Private Schools, Colleges, Universities, and Special Training Programs for the Mentally Retarded or Youthful Offender.

EFFECTIVE APRIL 13, 1981

1. EMPLOYEES WHO HAVE PREVIOUSLY BEEN EXAMINED AND CERTIFIED IN MASSACHUSETTS AS FREE FROM TUBERCULOSIS IN A COMMUNICABLE FORM WILL NO LONGER BE REQUIRED TO BE RE-EXAMINED AND CERTIFIED ROUTINELY EVERY THREE YEARS.

   The educational institution should have on record that each employee has been issued a valid certification in Massachusetts.

2. ALL NEW EMPLOYEES MUST HAVE A SCREENING EXAMINATION AND BE CERTIFIED AS FREE FROM TUBERCULOSIS IN A COMMUNICABLE FORM BEFORE BEGINNING EMPLOYMENT IN MASSACHUSETTS.

   These employees must be screened by means of Mantoux tuberculin test unless known to be tuberculin positive.* If the test is negative, the employee may be certified. If the employee has a positive tuberculin test, a negative chest x-ray is required before certification.

3. EMPLOYEES WHO ARE EXPOSED TO A PATIENT WITH TUBERCULOSIS, AND EMPLOYEES WHO LIVE OR WORK IN AN AREA DETERMINED BY THE COMMISSIONER OF PUBLIC HEALTH TO BE A HIGH TUBERCULOSIS PREVALENCE AREA, MAY BE REQUIRED TO HAVE A REPEAT EXAMINATION AND CERTIFICATION TO SHOW FREEDOM FROM TUBERCULOSIS.

   At this time, no community or section thereof has been determined to be a high tuberculosis prevalence area.

4. EMPLOYEES WHO HAVE PREVIOUSLY FILED A VALID CERTIFICATION WITH ANOTHER EDUCATIONAL INSTITUTION IN MASSACHUSETTS, AND SUBSEQUENTLY TRANSFER EMPLOYMENT WITHIN THE COMMONWEALTH, SHALL NOT BE REQUIRED TO FILE A NEW CERTIFICATION.

Evidence of a valid certification should be transferred from the former to the new employer.

5. EMPLOYEES WHO HAVE BEEN CERTIFIED AS FREE FROM TUBERCULOSIS BY APPROVING AUTHORITIES OF OTHER STATES WHICH HAVE SIMILAR LAWS OR REGULATIONS REQUIRING CERTIFICATION MAY SUBMIT SUCH EVIDENCE FOR APPROVAL TO THE DIRECTOR OF THE DIVISION OF TUBERCULOSIS CONTROL.

6. ON PETITION IN WRITING, THE PROVISIONS OF THIS LAW MAY BE WAIVED BY THE DIRECTOR OF THE DIVISION OF TUBERCULOSIS CONTROL WHEN, IN HIS OPINION, OVEREXPOSURE TO RADIATION WOULD IMPERIL A PERSON'S HEALTH.

Persons applying for such waiver who have had a significant prior exposure to radiation, and those who have completed a medically approved course of preventive therapy should present such evidence in writing from their physician.

Standard card forms for the recording of certification (MDPH-T-36) are available from the Division of Tuberculosis Control. Syringes for tuberculin testing are also available from the Division. The testing agent, called "PPD, 5 TU" (Purified Protein Derivative, 5 tuberculin units) is available from the State Laboratory Institute, 305 South Street, Jamaica Plain, MA 02130. Telephone number is (617) 522-3700, extension 267. All of these items are available free of charge.

Administrators of educational programs should continue to be cognizant of their responsibilities for employee compliance with this law, and of their role in the prevention and control of tuberculosis in their institutions. No person known to be suffering from tuberculosis in a communicable form, or having evidence of symptoms thereof, shall be employed or continued in employment at such institution, whether or not such person has been previously certified as free from tuberculosis in a communicable form.

Thank you for your cooperation and assistance in the administration of this law and for your continued interest in the control and eradication of tuberculosis.

*See DPH Circular PH-TM 1321 (Adm. of a Tuberculin Test) Advisory Letter #100.

Thomas J. Kearns

Thomas J. Kearns, Director
Division of Tuberculosis Control

Approved:

Alfred L. Frechette M.D

COMMISSIONER

F/TCkm

Questions and Answers About TB

2002

CDC
TB Elimination

DEPARTMENT OF HEALTH AND HUMAN SERVICES

SAFER • HEALTHIER • PEOPLE

Questions and Answers About TB

2002

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for HIV, STD, and TB Prevention
Division of Tuberculosis Elimination
January 2002

CONTENTS

For definitions of common terms related to TB, see the glossary at the back of this booklet (page 17).

INTRODUCTION

What is TB?

TB, or tuberculosis, is a disease caused by bacteria called *Mycobacterium tuberculosis.* The bacteria can attack any part of your body, but they usually attack the lungs. TB disease was once the leading cause of death in the United States.

In the 1940s, scientists discovered the first of several drugs now used to treat TB. As a result, TB slowly began to disappear in the United States. But TB has come back. Between 1985 and 1992, the number of TB cases increased. The country became complacent about TB and funding of TB programs was decreased. However, with increased funding and attention to the TB problem, we have had a steady decline in the number of persons with TB. But TB is still a problem; more than 16,000 cases were reported in 2000 in the United States.

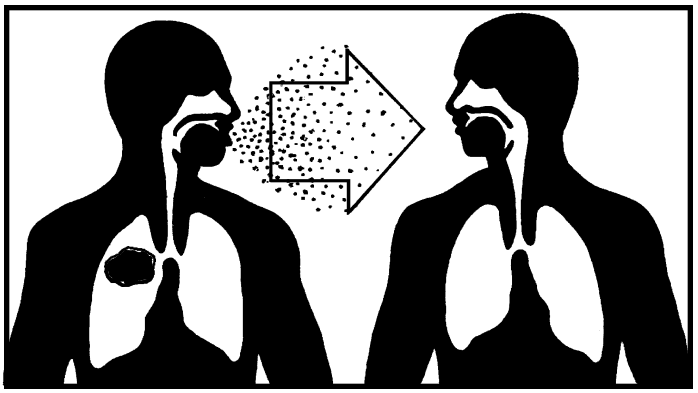
TB is spread through the air from one person to another. The bacteria are put into the air when a person with TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected.

People who are infected with **latent TB** do not feel sick, do not have any symptoms, and cannot spread TB. But they may develop **TB disease** at some time in the future. People with TB disease can be treated and cured if they seek medical help. Even better, people who have latent TB infection but are not yet sick can take medicine so that they will never develop TB disease.

This booklet answers common questions about TB. Please ask your doctor or nurse if you have other questions about latent TB infection or TB disease.

How is TB spread?

TB is spread through the air from one person to another. The bacteria are put into the air when a person with TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected.



When a person breathes in TB bacteria, the bacteria can settle in the lungs and begin to grow. From there, they can move through the blood to other parts of the body, such as the kidney, spine, and brain.

TB in the lungs or throat can be infectious. This means that the bacteria can be spread to other people. TB in other parts of the body, such as the kidney or spine, is usually not infectious.

People with TB disease are most likely to spread it to people they spend time with every day. This includes family members, friends, and coworkers.

What is latent TB infection?

In most people who breathe in TB bacteria and become infected, the body is able to fight the bacteria to stop them from growing. The bacteria become inactive, but they remain alive in the body and can become active later. This is called latent TB infection. People with latent TB infection:

- have no symptoms
- don't feel sick
- can't spread TB to others
- usually have a positive skin test reaction (see page 5)
- can develop TB disease later in life if they do not receive treatment for latent TB infection (see page 7)

Many people who have latent TB infection never develop TB disease. In these people, the TB bacteria remain inactive for a lifetime without causing disease. But in other people, especially people who have weak immune systems, the bacteria become active and cause TB disease.

What is TB disease?

TB bacteria become active if the immune system can't stop them from growing. The active bacteria begin to multiply in the body and cause TB disease. Some people develop TB disease soon after becoming infected, before their immune system can fight the TB bacteria. Other people may get sick later, when their immune system becomes weak for some reason.

Babies and young children often have weak immune systems. People infected with HIV, the virus that causes AIDS, have very weak immune systems. Other people can have weak immune systems, too, especially people with any of these conditions:

- substance abuse
- diabetes mellitus
- silicosis
- cancer of the head or neck
- leukemia or Hodgkin's disease
- severe kidney disease
- low body weight
- certain medical treatments (such as corticosteroid treatment or organ transplants)

Symptoms of TB depend on where in the body the TB bacteria are growing. TB bacteria usually grow in the lungs. TB in the lungs may cause:

- a bad cough that lasts longer than 2 weeks
- pain in the chest
- coughing up blood or sputum (phlegm from deep inside the lungs)

Other symptoms of TB disease are:

- weakness or fatigue
- weight loss
- no appetite
- chills
- fever
- sweating at night

For information on how TB disease is treated (see page 9).

Difference Between Latent TB Infection and TB Disease

Latent TB Infection	TB Disease
• Have no symptoms • Do not feel sick	• Symptoms include: - a bad cough that lasts longer than 2 weeks - pain in the chest - coughing up blood or sputum - weakness or fatigue - weight loss - no appetite - chills - fever - sweating at night
• Cannot spread TB to others	• May spread TB to others
• Usually have a positive skin test	• Usually have a positive skin test
• Chest x-ray and sputum tests normal	• May have abnormal chest x-ray, and/or positive sputum smear or culture

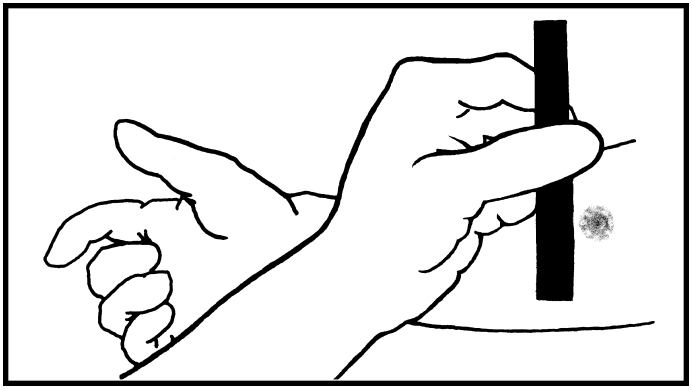
LATENT TB INFECTION

How can I get tested for TB?

A TB skin test is the only way to find out if you have latent TB infection. You can get a skin test at the health department or at your doctor's office. You should get tested for TB if:

- you have spent time with a person with known or suspected to have TB disease
- you have HIV infection or another condition that puts you at high risk for TB disease
- you think you might have TB disease
- you are from a country where TB disease is very common (most countries in Latin America and the Caribbean, Africa, Asia, Eastern Europe, and Russia)
- you inject drugs
- you live somewhere in the U.S. where TB disease is more common (homeless shelters, migrant farm camps, prisons and jails, and some nursing homes)

A health care worker can give you the TB skin test. The health care worker will inject a small amount of testing fluid (called tuberculin) just under the skin on the lower part of your arm. After 2 or 3 days, the health care worker will measure your reaction to the test. You



may have a small bump where the tuberculin was injected. The health care worker will measure this bump and tell you if your reaction to the test is positive or negative. A positive reaction usually means that you have latent TB infection.

If you have a positive reaction to the skin test, your doctor or nurse may do other tests to see if you have TB disease. These tests usually include a chest x-ray and a test of the phlegm you cough up. Because the TB bacteria may be found somewhere besides your lungs, your doctor or nurse may check your blood or urine, or do other tests. If you have TB disease, you will need to take medicine to cure the disease (see page 9).

If you have recently spent time with someone with infectious TB, your skin test reaction may not be positive yet. You may need a second skin test 10 to 12 weeks after the last time you spent time with the infectious person. This is because it can take several weeks after infection for your immune system to be able to react to the TB skin test. If your reaction to the second test is negative, you probably do not have latent TB infection.

What if I have been vaccinated with BCG?

BCG is a vaccine for TB. This vaccine is not widely used in the United States, but it is often given to infants and small children in other countries where TB is common. BCG vaccine does not always protect people from TB.

If you were vaccinated with BCG, you may have a positive reaction to a TB skin test. This reaction may be due to the BCG vaccine itself or to latent TB infection. But your positive reaction probably means that you have latent TB infection if:

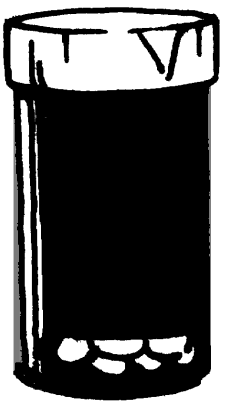
- you recently spent time with a person who has TB disease
- you are from an area of the world where TB disease is very common (most countries in Latin America and the Caribbean, Africa, Asia, Eastern Europe, and Russia)
- you spend time where TB is common (homeless shelters, drug-treatment centers, health care clinics, jails, prisons)

If I have latent TB infection, how can I keep from developing TB disease?

Many people who have latent TB infection never develop TB disease. But some people who have latent TB infection are more likely to develop TB disease than others. These people are at **high risk** for TB disease. They include:

- people with HIV infection
- people who became infected with TB bacteria in the last 2 years
- babies and young children
- people who inject drugs
- people who are sick with other diseases that weaken the immune system (see page 3)
- elderly people
- people who were not treated correctly for TB in the past

If you have latent TB infection (a positive skin test reaction) and you are in one of these high-risk groups, you need to take medicine to keep from developing TB disease. This is called treatment for latent TB infection. There are many treatment options. You and your health care provider must decide which treatment is best for you.



The medicine usually used for the treatment of latent TB infection is a drug called isoniazid or INH. INH kills the TB bacteria that are in the body. If you take your medicine as prescribed, treatment for latent TB infection will keep you from ever developing TB disease.

Most people must take INH for at least 6 to 9 months. Children and people with HIV infection may need to take INH for a longer time.

Sometimes people are given treatment for latent TB infection even if their skin test reaction is not positive. This is often done with infants, children, and HIV-infected people who have recently spent time with someone with infectious TB disease. This is because they are at very high risk of developing serious TB disease soon after they become infected with TB bacteria.

It is important that you take all the pills prescribed for you so that your treatment for latent TB infection is effective. If you start taking INH, you will need to see your doctor or nurse on a regular schedule. He or she will check on how you are doing. Very few people have serious side effects to INH. However, if you have any of the following side effects, call your doctor or nurse right away:

- no appetite
- nausea
- vomiting
- yellowish skin or eyes
- fever for 3 or more days
- abdominal pain
- tingling in the fingers and toes

Warning: Drinking alcoholic beverages (wine, beer, and liquor) while taking INH can be dangerous. Check with your doctor or nurse for more information.

People who have latent TB infection but do not receive treatment for latent TB infection need to know the symptoms of TB. If they develop symptoms of TB disease later on, they should see a doctor right away.

What if I have HIV infection?

A person can have latent TB infection for years without any signs of disease. But if that person's immune system gets weak, the infection can quickly turn into TB disease. Also, if a person who has a weak immune system spends time with someone with infectious TB, he or she may become infected with TB bacteria and quickly develop TB disease.

Because HIV infection weakens the immune system, people with latent TB infection and HIV infection are at **very high risk** of developing TB disease. All HIV-infected people should be given a TB skin test to find out if they have latent TB infection. If they have latent TB infection, they need treatment for latent TB infection **as soon as possible** to prevent them from developing TB disease. If they have TB disease, they must take medicine to cure the disease.

TB disease can be prevented and cured, even in people with HIV infection.

TB DISEASE

How is TB disease treated?

There is good news for people with TB disease! TB disease can almost always be cured with medicine. But the medicine must be taken as the doctor or nurse tells you.

The most common drugs used to fight TB are:

- isoniazid (INH)
- rifampin
- pyrazinamide
- ethambutol
- streptomycin

If you have TB disease, you will need to take several different drugs. This is because there are many bacteria to be killed. Taking several drugs will do a better job of killing all of the bacteria and preventing them from becoming resistant to the drugs.

If you have TB of the lungs or throat, you are probably infectious. You need to stay home from work or school so that you don't spread TB bacteria to other people. After taking your medicine for a few weeks, you will feel better and you may no longer be infectious to others. Your doctor or nurse will tell you when you can return to work or school.

Having TB should not stop you from leading a normal life. When you are no longer infectious or feeling sick, you can do the same things you did before you had TB. The medicine that you are taking should not affect your strength, sexual function, or ability to work. If you take your medicine as your doctor or nurse tells you, the medicine will kill all the TB bacteria. This will keep you from becoming sick again.

What are the side effects of drugs for TB?

Medicine for TB is relatively safe. Occasionally, the drugs may cause side effects. Some side effects are minor problems. Others are more serious. If you have a serious side effect, **call your doctor or nurse immediately**. You may be told to stop taking your medicine or to return to the clinic for tests.

The side effects listed below are **serious**. If you have any of these symptoms, call your doctor or nurse immediately:

- no appetite
- nausea
- vomiting
- yellowish skin or eyes
- fever for 3 or more days
- abdominal pain
- tingling fingers or toes
- skin rash
- easy bleeding
- aching joints
- dizziness
- tingling or numbness around the mouth
- easy bruising
- blurred or changed vision
- ringing in the ears
- hearing loss

The side effects listed below are **minor** problems. If you have any of these side effects, you can continue taking your medicine:

- Rifampin can turn urine, saliva, or tears orange. The doctor or nurse may advise you not to wear soft contact lenses because they may get stained.

- Rifampin can make you more sensitive to the sun. This means you should use a good sunscreen and cover exposed areas so you don't burn.

- Rifampin also makes birth control pills and implants less effective. Women who take rifampin should use another form of birth control.

- If you are taking rifampin as well as methadone (used to treat drug addiction), you may have withdrawal symptoms. Your doctor or nurse may want to adjust your methadone dosage.

Why do I need to take TB medicine regularly?

TB bacteria die very slowly. It takes at least 6 months for the medicine to kill all the TB bacteria. You will probably start feeling well after only a few weeks of treatment. But beware! The TB bacteria are still alive in your body. You must continue to take your medicine until all the TB bacteria are dead, even though you may feel better and have no more symptoms of TB disease.

If you don't continue taking your medicine or you aren't taking your medicine regularly, this can be very dangerous. The TB bacteria will grow again and you will remain sick for a longer time. The bacteria may also become resistant to the drugs you are taking. You may need new, different drugs to kill the TB bacteria if the old drugs no longer work. These new drugs must be taken for a longer time and usually have more serious side effects.

If you become infectious again, you could give TB bacteria to your family, friends, or anyone else who spends time with you. It is **very important** to take your medicine the way your doctor or nurse tells you.

How can I remember to take my medicine?

The only way to get well is to take your medicine exactly as your doctor or nurse tells you. This may not be easy! You will be taking your medicine for a long time (6 months or longer), so you should get into a routine. Here are some ways to remember to take your medicine:

- Participate in the directly observed therapy (DOT) program at your health department.
- Take your pills at the same time every day — for example, you can take them before eating breakfast, during a coffee break, or after brushing your teeth.
- Ask a family member or a friend to remind you to take your pills.
- Mark off each day on a calendar as your take your medicine.
- Put your pills in a weekly pill dispenser. Keep it by your bed or in your purse or pocket.

NOTE: Remember to keep all medicine out of reach of children.

If you forget to take your pills one day, skip that dose and take the next scheduled dose. Tell your doctor or nurse that you missed a dose. You may also call your doctor or nurse for instructions.

The best way to remember to take your medicine is to get directly observed therapy (DOT). If you get DOT, you will meet with a health care worker every day or several times a week. You will meet at a place you both agree on. This can be the TB clinic, your home or work, or any other convenient location. You will take your medicine at this place.

DOT helps in several ways. The health care worker can help you remember to take your medicine and complete your treatment. This means you will get well as soon as possible. With DOT, you may need to take medicine only 2 or 3 times each week instead of every day.

The health care worker will make sure that the medicine is working as it should. This person will also watch for side effects and answer questions you have about TB.

Even if you are not getting DOT, you must be checked at different times to make sure everything is going well. You should see your doctor or nurse regularly while you are taking your medicine. This will continue until you are cured.

How can I keep from spreading TB?

The most important way to keep from spreading TB is to take all your medicine, exactly as directed by your doctor or nurse. You should also keep all of your clinic appointments! Your doctor or nurse needs to see how you are doing. You may need another chest x-ray or a test of the phlegm you may cough up. These tests will show whether the medicine is working. They will also show whether you can still give TB bacteria to others. Be sure to tell the doctor about anything you think is wrong.

If you are sick enough with TB to go to a hospital, you may be put in a special room. These rooms use air vents that keep TB bacteria from spreading. People who work in these rooms must wear a special face mask to protect themselves from TB bacteria. You must stay in the room so that you will not spread TB bacteria to other people. Ask a nurse if you need anything that is not in your room.

If you are infectious while you are at home, there are certain things you can do to protect yourself and others near you. Your doctor may tell you to follow these guidelines to protect yourself and others:

- The most important thing is to take your medicine.
- Always cover your mouth with a tissue when you cough, sneeze, or laugh. Put the tissue in a closed paper sack and throw it away.
- Do not go to work or school. Separate yourself from others and avoid close contact with anyone. Sleep in a bedroom away from other family members.

- Air out your room often to the outside of the building (if it is not too cold outside). TB spreads in small closed spaces where air doesn't move. Put a fan in your window to blow out (exhaust) air that may be filled with TB bacteria. If you open other win dows in the room, the fan also will pull in fresh air. This will reduce the chances that TB bacteria stay in the room and infect someone who breathes the air.

Remember, TB is spread through the air. People cannot get infected with TB bacteria through handshakes, sitting on toilet seats, or sharing dishes and utensils with someone who has TB.

After you take medicine for about 2 or 3 weeks, you may no longer be able to spread TB bacteria to others. If your doctor or nurse agrees, you will be able to go back to your daily routine. Remember, you will get well only if you take your medicine exactly as your doctor or nurse tells you.

Think about people who may have spent time with you, such as family members, close friends, and coworkers. The local health department may need to test them for latent TB infection. TB is especially dangerous for children and people with HIV infection. If infected with TB bacteria, these people need preventive therapy right away to keep from developing TB disease.

What is multidrug-resistant TB (MDR TB)?

When TB patients do not take their medicine as prescribed, the TB bacteria may become resistant to a certain drug. This means that the drug can no longer kill the bacteria. Drug resistance is more common in people who:

- have spent time with someone with drug-resistant TB disease
- do not take their medicine regularly
- do not take all of their prescribed medicine
- develop TB disease again, after having taken TB medicine in the past
- come from areas where drug-resistant TB is common

Sometimes the bacteria become resistant to more than one drug. This is called multidrug-resistant TB, or MDR TB. This is a **very serious** problem. People with MDR TB disease must be treated with special drugs. These drugs are not as good as the usual drugs for TB and they may cause more side effects. Also, some people with MDR TB disease must see a TB expert who can closely observe their treatment to make sure it is working.

People who have spent time with someone sick with MDR TB disease can become infected with TB bacteria that are resistant to several drugs. If they have a positive skin test reaction, they may be given preventive therapy. This is **very important** for people who are at high risk of developing MDR TB disease, such as children and HIV-infected people.

GLOSSARY OF TERMS RELATED TO TB

BCG - a vaccine for TB named after the French scientists Calmette and Guérin. BCG is not widely used in the United States, but it is often given to infants and small children in other countries where TB is common.

Cavity - a hole in the lung where TB bacteria have eaten away the surrounding tissue. If a cavity shows up on your chest x-ray, you are more likely to cough up bacteria and be infectious.

Chest x-ray - a picture of the inside of your chest. A chest x-ray is made by exposing a film to x-rays that pass through your chest. A doctor can look at this film to see whether TB bacteria have damaged your lungs.

Contact - a person who has spent time with a person with infectious TB.

Culture - a test to see whether there are TB bacteria in your phlegm or other body fluids. This test can take 2 to 4 weeks in most laboratories.

Directly observed therapy (DOT) - a way of helping patients take their medicine for TB. If you get DOT, you will meet with a health care worker every day or several times a week. You will meet at a place you both agree on. This can be the TB clinic, your home or work, or any other convenient location. You will take your medicine at this place.

Extrapulmonary TB - TB disease in any part of the body other than the lungs (for example, the kidney or lymph nodes).

HIV infection - infection with the human immunodeficiency virus, the virus that causes AIDS (acquired immunodeficiency syndrome). A person with both latent TB infection and HIV infection is at very high risk for TB disease.

Infectious TB - TB disease of the lungs or throat, which can be spread to other people.

Infectious person - a person who can spread TB to others because he or she is coughing TB bacteria into the air.

INH or isoniazid - a drug used to prevent TB disease in people who have latent TB infection. INH is also one of the 5 drugs often used to treat TB disease.

Latent TB infection - a condition in which TB bacteria are alive but inactive in the body. People with latent TB infection have no symptoms, don't feel sick, can't spread TB to others, and usually have a positive skin test reaction. But they may develop TB disease later in life if they do not receive treatment for latent TB infection.

Miliary TB - TB disease that has spread to the whole body through the bloodstream.

Multidrug-resistant TB (MDR TB) - TB disease caused by bacteria resistant to more than one drug often used to treat TB.

***M. tuberculosis* -** bacteria that cause latent TB infection and TB disease.

Negative - usually refers to a test result. If you have a negative TB skin test reaction, you probably **do not have** latent TB infection.

Positive - usually refers to a test result. If you have a positive TB skin test reaction, you probably **have** latent TB infection.

Pulmonary TB - TB disease that occurs in the lungs, usually producing a cough that lasts longer than 2 weeks. Most TB disease is pulmonary.

Resistant bacteria - bacteria that can no longer be killed by a certain drug.

TB skin test - a test that is often used to detect latent TB infection. A liquid called tuberculin is injected under the skin on the lower part of your arm. If you have a positive reaction to this test, you probably have latent TB infection.

Treatment for latent TB infection - treatment for people with latent TB infection that prevents them from developing TB disease.

Smear - a test to see whether there are TB bacteria in your phlegm. To do this test, lab workers smear the phlegm on a glass slide, stain the slide with a special stain, and look for any TB bacteria on the slide. This test usually takes 1 day.

Sputum - phlegm coughed up from deep inside the lungs. Sputum is examined for TB bacteria using a smear; part of the sputum can also be used to do a culture.

TB disease - an illness in which TB bacteria are multiplying and attacking different parts of the body. The symptoms of TB disease include weakness, weight loss, fever, no appetite, chills, and sweating at night. Other symptoms of TB disease depend on where in the body the bacteria are growing. If TB disease is in the lungs (pulmonary TB), the symptoms may include a bad cough, pain in the chest, and coughing up blood.

Tuberculin - a liquid that is injected under the skin on the lower part of your arm during a TB skin test. If you have latent TB infection, you will probably have a positive reaction to the tuberculin.

This publication is available free of charge and can be requested in the following ways:

- Through the DTBE's online ordering system: www.cdc.gov/nchstp/tb
- Through CDC's Voice and Fax Information System by calling toll free: 1-888-232-3228 and requesting *Questions and Answers About Tuberculosis*, publication order #00-6469.

Early Intervention Program Facility Checklist
Department of Public Health

Program _____ Location _____

Regional Specialist _____ Visit Date _____

Is program currently licensed by OCCS? Yes ___ No ___ If yes, license expiration date _____

If license is current, complete Section VI and Section VII, # 5 only.
If no, is there OCCS documentation stating only occasional care will be provided? Yes ___ No ___

I. - SPACE

01. ___ There is adequate space for each child and adult present.
02. ___ The play space is well ventilated and free of cigarette smoke.
03. ___ There is a comfortable, non-intrusive space where parents & visitors can observe play groups.
04. ___ There is a nearby outdoor play space.
05. ___ There is a place where adults can have a meeting.
06. ___ There is a place where two adults can have a private conference.
07. ___ Each full time staff person has an individual workspace.
08. ___ There is adequate storage for play group materials & equipment.

II. - SAFETY

01. ___ There is an evacuation plan posted visibly in each room.
02. ___ Staff is familiar with the evacuation plan.
03. ___ Every staff person has participated in an evacuation drill.
04. ___ There is an evacuation drill within the first 3 weeks of each play group session.
05. ___ The exit from each room is clearly marked.
06. ___ Each exit is clear of obstructions.
07. ___ Furniture is free of hazards.
08. ___ Walls and floors are free of hazards.
09. ___ Hot surfaces and hot water appliances are inaccessible to children.
10. ___ Children's areas are free of dangling electrical cords.
11. ___ All hazardous substances are inaccessible to children.
12. ___ All areas are free of choking hazards.
13. ___ All arts & crafts materials are safe.
14. ___ The outdoor play area and route to it is protected from traffic.
15. ___ The outdoor play area is free of broken glass, hazards.
16. ___ The outdoor play equipment is safe.
17. ___ Fire extinguishers are visible. ___ accessible ___ charged
18. ___ Smoke detectors are present.
19. ___ An automatic sprinkler system is present.

III. - SANITATION

01. ___ There is a place for hand washing.
02. ___ Hand washing procedures are posted.
03. ___ There are appropriate cleaning and housekeeping materials.
04. ___ Clean-up areas are separate from food handling and toileting areas.
05. ___ Water play containers and toys are sanitized daily.
06. ___ All toys and play materials are washable.
07. ___ All toys and play materials are clean.
08. ___ All stored foods are covered and refrigerated.
09. ___ All food handling areas (including refrigerator) are clean.

IV. - TOILETING AND DIAPERING

01. ___ All toileting and diapering areas are separate from food handling areas.
02. ___ There is running water in the toileting area.
03. ___ There is running water in the diapering area.
04. ___ There are disinfecting materials, stored safely, in these areas.
05. ___ There is a disposable diapering surface.
06. ___ There is a covered, lined trash container for soiled diapers.
07. ___ Potty chairs are clean and disinfected.
08. ___ A diapering plan is posted.

V. - EMERGENCIES/FIRST AID

01. ___ There is a well-stocked, accessible first aid kit.
02. ___ There is a staff person certified in first aid and CPR on site when children are present.
03. ___ There is a list of emergency phone numbers by each phone.
04. ___ The list includes the MA Poison Information Center.
05. ___ There is an emergency number for every child whose caregiver is not present.
06. ___ There is an emergency number for caregivers who are present.
07. ___ All staff are aware of special medical needs/allergies of children present.
08. ___ There is an allergy precaution list posted.
09. ___ There is a telephone/intercom system readily accessible for emergencies.

VI. - TRANSPORTATION

01. ___ The transportation drop off point is:
    ___ off street with loading/unloading zone.
    ___ on street with enforced designated parking space for handicapped loading/unloading.
02. ___ There is adequate, interior/protected, secure storage space for car seats.
03. ___ The car seat storage space is readily accessible to drivers.
04. ___ The drop off point is within view of program staff or there is a system for drivers to communicate (i.e., buzzer)
05. ___ Staff meet transportation vehicles at the drop off point.
06. ___ Transportation concerns are promptly reported.

VII. - OTHER

01. ___ There is a current Building Certificate of Inspection from the local building inspector posted or on file.
02. ___ There is a document on file that certifies the facility was inspected for lead and was found to be in compliance
with Massachusetts General Law, Chapter 111, Section 197, and 105 CMR 460.000.
Date of inspection: _____ OR 02a. ___ There is documentation the facility was built after 1978.
03. ___ The facility appears to be asbestos-safe.
04. ___ The facility meets the criteria for accessibility as listed in the Rules and Regulations of the Architectural Access Board (521 CMR) or by compliance with the requirements of OCCS (102 CMR 7.11 [15]-[24]).
05. ___ All areas (including bathrooms) are accessible to the following:
___ children
___ caregivers
___ staff
06. ___ Attach a current list of staff and consultants with a copy of license (where applicable) for each. Include first aid and CPR certification, proof of negative TB test and documentation that person was in good health at the time of hire.

Community Group Facility Approval Form

Required for facilities <u>when caregivers will not be present</u> – Program will submit this form and documentation to the Regional Early Intervention Specialist who, upon approval, will forward copies to the EI Transportation office and to the appropriate RTA.

The facility _____ located at
(Name of Facility)

_____ is approved
(Street Address)

for the provision of MDPH Early Intervention services.

There are two methods for facility approval:

☐ A.1. Copy of current licensure by the Office of Child Care Services (OCCS)

☐ A.2. If needed, evidence of provisional certification of staff for community EI provider.

OR

☐ B.1. Current Building Certificate of Inspection which indicates "Code I-2" and "Code E" Usage.

☐ B.2. Documentation that the building is lead safe.

☐ B.3. Documentation that the facility meets the criteria for accessibility **of at least one site** as listed in the Rules and Regulations of the Architectural Access Board (521 CMR) or by compliance with the requirements of OCCS (102 CMR. 7.11 [15]-[24]).

☐ B.4. The MDPH Early Intervention Facility Checklist has been completed. (Allow 2 weeks to schedule a visit).

AND (for both methods):

☐ EI program staff have reviewed the MDPH Early Intervention Transportation Standards with the Facility staff and they have agreed to comply (see page 2 of this document for details).

_____ _____
(Program Director) (Date)

This section to be completed by Regional EI Specialist: Transportation code ☐☐☐☐☐

☐ Copies forwarded to Director, EI Transportation Services and to RTA. _____
(Date)

_____ _____
(Regional Early Intervention Specialist) (Date)

The requirement for facility staff to comply with transportation standards is directly related to the safety and security of the children being transported. The following are some of these Standards (please refer to your EI Transportation Standards for a complete listing):

- Facility staff must be available for one hour before and after any scheduled session involving EI transportation. This requirement may be satisfied with the EI program staff from the primary site being available in lieu of staff from a community facility.
- The facility must be accessible (preferably off street parking) for the safe loading and discharging of children to and from the vehicle.
- Facility staff are required to go out to the vehicle and help children entering and exiting the vehicle and assist in securing and releasing children in car seats and seat belts. Drivers are required to participate in this process and must check to insure all children and passengers are properly secured.
- Facility staff must verify and sign Trip/route sheets and forward them to EI program staff.
- The facility must have adequate storage space for children's car seats (car seats do not stay on the vehicle).
- Facility staff must report any issues or problems with transportation to EI program staff.

First Aid Kits

Recommendations taken from Caring for Our Children: National Health and Safety Performance Standards, Chapter 5: Facilities, page 226

Each kit shall be a closed container for storing first aid supplies, accessible to child care staff members at all times but out of reach of children. First aid kits shall be restocked after use, and an inventory shall be conducted at least monthly. The first aid kit shall contain at least the following items:

a) Disposable nonporous gloves;
b) Scissors;
c) Tweezers;
d) A non-glass, non-mercury thermometer to measure a child's temperature;
e) Bandage tape;
f) Sterile gauze pads;
g) Flexible roller gauze;
h) Triangular bandages;
i) Safety pins;
j) Eye dressing;
k) Pen/pencil and note pad;
l) Syrup of ipecac (use only if recommended by the Poison Control Center);
m) Cold pack;
n) Current American Academy of Pediatrics (AAP) standard first aid chart or equivalent first aid guide;
o) Coins for use in a pay phone;
p) Water;
q) Small plastic or metal splints;
r) Liquid soap;
s) Adhesive strip bandages, plastic bags for clothes, gauze, and other materials used in handling blood;
t) Any emergency medication needed for children with special needs;
u) List of emergency phone numbers, parents' home and work phone numbers, and the Poison Control Center phone number.

GCC/SACC ILLNESS/INJURY REPORT FORM

CENTER_____ FACILITY ID#_____
ADDRESS _____
Administrator_____

Child's Name _____ Date of Birth _____
Parent's name _____ Home Telephone _____

Date, time and location of illness/injury _____
Where did injury occur? _____
Description of illness/injury: how did it happen? _____

Who assessed the illness/injury? _____
Who administered first aid or CPR? _____
What first aid was administered? _____

Was 911 called? _____
Was child transported for medical attention? _____ Where? _____By Whom?_____
What treatment was provided? _____
Diagnosis of child _____
What group was child in when illness/injury occurred?_____ Number of children in group?_____
Name & qualification of staff who were supervising the group when illness/injury occurred? _____

Name(s) of witness(es) _____
Describe equipment involved, if applicable (location, condition...) _____

Was parent notified? _____ How? _____ When? _____ By whom? _____
Was a 51A filed? _____

Additional Information _____

I hereby certify that the above information is true and accurate.

Signature and Position of Person Completing Form Date

Signature of Parent Date
(optional but recommended)

To submit to OCCS within 3 business days if child receives medical attention

____ Placed in Child's file
____ Entered in Central Log or File
____ Copy provided to parent

____ GCC/SACC Injury Report Form
____ Hospital report, if applicable
____ Copy of First Aid cards for staff involved

ILLNESS/INJURY LOG

CHILD'S NAME	GROUP	DESCRIPTION OF ILLNESS/INJURY	DATE & TIME OF ILLNESS/INJURY	LOCATION WHERE INJURY OCCURRED	CAUSE OF INJURY	EQUIP/PRODUCT INVOLVED

EXHIBIT 7-2

SAMPLE INDIVIDUALIZED HEALTH CARE PLAN (IHCP)
HEALTH CARE PLAN FOR THE SCHOOL SETTING

_____ (Health Care Coordinator)

_____ (Education Coordinator)

Student Information:

_____ (Name) _____ (Birthdate)

_____ (Grade)

_____ (School)

_____ (Parent/Guardian) _____ (Address)

Mother (___) _____ (home) (___) _____ (work)

Father (___) _____ (home) (___) _____ (work)

Preparation for Entry/Development of Health Care Plan

☐ Home Assessment _____ (Date) by _____ (Name, Title)

Summary _____ (Date) Parent Interview _____ (Date)

Student Interview _____ (when appropriate) (Date)

☐ Medical History _____ (Date)

☐ Planning Meetings _____ (Date) _____ (Date) _____ (Date)

☐ Staff Training Meetings _____ (Date) _____ (Date) _____ (Date)

☐ Educ. Team Meeting _____ (Date) _____ (Date) _____ (Date)

Doctor's Order _____ (Date)

Parent's Consent _____ (Date)

Child-Specific Procedural Guidelines _____ (Date)

Emergency Plan _____ (Date)

Health Care Plan Included in Child's Record _____ (Date)

Child-Specific Care-giver Training (Skills Checklist) _____ (Date)

Next Training Review _____ (Date)

Health Care Plan Included in IEP: _____ (Date)

Next Review of Health Care Plan _____ (Date)

KEY CONTACTS

Name_____ Date_____

Primary Health Care Providers	Telephone Numbers

School Contacts

	Training	
Direct Caregivers	Child-Specific	General
Substitute Caregivers		
Back-up Staff		

Child-Specific Training Done By

_____ _____
(Date)

General Staff Training Done By

_____ _____
(Date)

Supervision Provided By

_____ _____
(Frequency)

[Used with permission of Project School Care, Children's Hospital, Boston, MA.]

PLAN FOR SPECIFIC PROCEDURE

Name _____ Date _____

Procedure: _____

Frequency: _____ Times: _____

Position of student during procedure: _____

Ability of the student to assist/perform procedure: _____

_____

Suggested setting for procedure: _____

Equipment:

Daily: _____ Emergency: _____

Checked by: _____ Checked by: _____

Storage: _____ Storage: _____

Maintenance: _____ Maintenance: _____

Home Care Co.: _____ Phone: _____

Child-specific techniques and helpful hints:

_____

Special considerations and precautions:

_____

[Used with permission of Project School Care, Children's Hospital, Boston, MA.]

LICENSED PROVIDER'S ORDER FOR SPECIALIZED HEALTH CARE PROCEDURE

Student's Name: _____ Birthdate: _____

Address: _____

Procedure: _____

_____

☐ I have reviewed the Health Care Plan and approve of it as written.

☐ I have reviewed the Health Care Plan and approve of it with the attached amendments.

☐ I do not approve of the Health Care Plan. A substitute plan is attached.

Other recommendations:

_____

_____

_____

_____

_____

_____

_____

Duration of the Procedure:

_____

(Date)

Physician's Signature: _____

Date: _____

Address: _____

_____ Phone: _____

[Adapted with permission from: *Pupil Personnel Services. Recommended Practices and Procedures Manual.* Illinois State Board of Education. 1983.]

POSSIBLE PROBLEMS

Name _____ Date _____

Observation	Reason	Action

[Used with permission of Project School Care, Children's Hospital, Boston, MA.]

EMERGENCY PLAN

Name:_____ Date:_____

Child-Specific Emergencies:

If You See This	Do This

If an emergency occurs:

1. Stay with the child.
2. Call or designate someone to call the nurse.

   State who you are:

   State where you are:

   State problem:

3. The school nurse will assess the child and decide whether the emergency plan should be implemented.
4. If the school nurse is unavailable, the following staff members are trained to deal with an emergency and to initiate the emergency plan:

_____

_____

_____

_____

[Used with permission of Project School Care, Children's Hospital, Boston, MA.]

Massachusetts Department of Public Health

CERTIFICATE OF IMMUNIZATION

Name _____

Date of Birth / / **Sex:** ☐ female ☐ male

Vaccine				Date
Hepatitis B			1	
			2	
			3	
DTaP	DT	Td	1	
			2	
			3	
			4	
			5	
			6	
			7	
IPV			1	
			2	
			3	
			4	
PCV7 (Pneumococcal conjugate 7-valent)			1	
			2	
			3	
			4	

Vaccine		Date
Hib	1	
	2	
	3	
	4	
MMR	1	
	2	
Varicella	1	
	2	
Hepatitis A	1	
	2	
PPV23 (Pneumococcal polysaccaride 23-valent)	1	
	2	
Influenza	1	
	2	
	3	
Other:		

Serologic Proof of Immunity		Check One	
Test (if done)	Date of Test	Positive	Negative
Measles	/ /		
Mumps	/ /		
Rubella	/ /		
Varicella*	/ /		
Hepatitis B	/ /		
* Must also ✓ Chickenpox History box.			

Chickenpox History

☐ Check the box if this person has a physician-certified reliable history of chickenpox.

Reliable history may be based on:

- physician interpretation of parent/guardian description of chickenpox
- physical diagnosis of chickenpox, or
- serologic proof of immunity

I certify that this immunization information was transferred from the above-named individual's medical records.

Doctor or nurse's name *(please print)* **Date:** / /

Signature: _____

Facility name: _____

PUBLIC HEALTH FACT SHEET

Salmonellosis from Reptiles

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

What is salmonellosis from reptiles?

All reptiles (lizards, snakes, and turtles) carry an infectious bacteria (germ) called *salmonella*. Salmonellosis is the disease caused by this bacteria.

What are the symptoms of salmonellosis in people?

Salmonellosis can cause an upset stomach, cramps, diarrhea, fever, nausea, and vomiting. Symptoms can take up to three days to show up, but most people get sick 12 to 36 hours after the germs are swallowed. Symptoms usually last for several days. Some people may get sick enough to go to the hospital. In rare cases, the bacteria can get into the blood and become life-threatening.

Who is at risk?

Salmonellosis can be very dangerous for infants, children, pregnant women, and the elderly. This disease is also dangerous for people who can not fight this bacteria because they may have a weakened immune system from HIV/AIDS, cancer or chemotherapy, organ transplants, kidney failure, chronic liver problems, or other diseases.

Will my pet reptile have any symptoms?

No. Salmonellosis does not usually make reptiles sick. They can have this bacteria and not have diarrhea or any other problems; however, they can still shed the bacteria in their feces.

How is salmonellosis spread?

Reptiles shed the bacteria in their feces. Since most reptiles are kept in a cage or aquarium, they are likely to have feces on their skin. They then spread the feces around the entire cage. People who touch their pets or clean the cages may get feces on their hands. They may then touch their hands to their face or mouths when eating, smoking, scratching, or biting their nails. Touching food may spread the feces from a person's hands to his or her mouth. If people do not wash their hands, the bacteria gets into their mouths and is swallowed. An infected person can also spread the bacteria to other people through his or her own feces.

How can salmonellosis be prevented?

Always wash your hands after touching a reptile or cleaning its cage.
Keep reptiles away from kitchens and food.
Never wash a reptile in a kitchen sink, bathroom sink, or bathtub.
Prevent infants, children, the elderly, and people with weakened immune systems from touching the pet or its cage. It is also important to keep those people away from areas where the reptile has been.

Can salmonellosis be treated?

Salmonellosis in people is usually not treated unless someone goes to the hospital. Reptiles should not be treated with antibiotics. This bacteria is normal for them.

Where can I get more information?

Salmonellosis in Humans: **The Massachusetts Department of Public Health**, Division of Epidemiology and Immunization **(617) 983-6800** or toll-free at **1-888-658-2850** or on the MDPH website at **http://www.state.ma.us/dph**

(OVER)

Salmonellosis in animals: **The Department of Food and Agriculture,** Bureau of Animal Health **(617) 727-3018.**

Your local board of health (listed in the phone book under local government)

Your doctor, nurse or health center

April 1997

Child Care Health and Safety Advisory

brought to you by the
Massachusetts Department of Public Health and the
Massachusetts Office for Child Care Services

BUREAU of COMMUNICABLE DISEASE CONTROL • *Division of Epidemiology and Immunization*
BUREAU of FAMILY AND COMMUNITY HEALTH • *Division of Maternal, Child and Family Health*
MAX CARE • *MAXIMIZING THE HEALTH AND SAFETY OF CHILDREN IN OUT-OF-HOME CARE*

Spring 2001

PRECAUTIONS CONCERNING REPTILES IN CHILD CARE SETTINGS

The Massachusetts Department of Public Health recommends that programs serving young children develop policies prohibiting reptiles (lizards, snakes and turtles) from coming in contact with infants. toddlers and preschoolers. Programs serving children older than five years of age should develop policies concerning reptiles. These policies would require strict handwashing and additional precautions for protecting children and staff with compromised immune systems.

Anyone who has contact with a reptile or its housing is at risk of getting *salmonellosis*. Infants and young children are the most commonly affected. Pregnant women, the elderly, and people with compromised immune systems are also at risk. Currently three states (Arizona, Minnesota and Wyoming) prohibit reptiles in day care centers.

What is salmonellosis?
Salmonellosis is an infection occurring after the ingesting any of the many types of Salmonella bacteria. Salmonella infection usually causes diarrhea, vomiting, fever, and cramping. In severe cases, it can lead to hospitalization. Salmonella can be found in uncooked foods such as eggs or raw chicken and in animal and human feces.

Why precautions regarding reptiles?
All reptiles shed Salmonella bacteria in their feces at some point. The reptiles don't usually show signs of disease. These bacteria are normal inhabitants of the gut of lizards, snakes, and turtles. The bacteria spread inside cages, tanks, and on the skin of the reptiles.

Reptiles should not be treated with antibiotics, since this will not likely affect the salmonella in their intestines and it may promote resistant bacteria. In addition, reptiles should not be tested for salmonella because they shed it intermittently. A negative test is probably meaningless.

Salmonella bacteria are spread easily from the reptile or its housing. When people touch an infected area, the bacteria get on their hands. When the infected hand touches a mouth, the bacteria are swallowed and can cause disease. Indirect contact can also cause illness. Contact with a floor or surface where a reptile has walked can be a source, or eating food prepared by someone who may have had contact and has not washed his or her hands properly.

What are the recommendations that apply to child care providers?

- **Children 5 years old and younger should avoid all direct contact with reptiles or materials in contact with reptiles.**

Develop a policy statement <u>immediately</u> prohibiting lizards, snakes, and turtles from infant. toddler, and preschool classrooms.

- **Pet reptiles should be kept out of households where children age 1 year and younger may live or be cared for.**

Family child care homes should not have lizards. snakes, and turtles.

- **Pet reptiles should not be kept in child care centers.**

Group child care and preschools should prohibit lizards. snakes, and turtles.

- School age programs should establish and maintain clear reptile policies immediately.

1. Reptiles should not be allowed to roam freely.
2. Reptiles should be kept out of kitchens and other food-preparation areas to prevent contamination.
3. Kitchen sinks should not be used to bathe reptiles or to wash their dishes, cages, or aquariums. If bathtubs are used for these purposes, they should be cleaned thoroughly and disinfected with bleach.
4. Require strict handwashing procedures. Persons should always wash their hands thoroughly with soap and water after handling reptiles or reptile cages.
5. School age programs should consider not keeping reptiles if immune compromised individuals are in the programs.
6. Immune compromised individuals in school age programs with reptiles should
    a. not be allowed to handle reptiles or reptile cages,
    b. not be in physical contact with others who have handled reptiles or reptile cages until after those others wash their hands,
    c. avoid areas (floors and other surfaces) where reptiles have walked until after those areas have been cleaned and disinfected,
    d. thoroughly wash their hands and any other body parts if they accidentally come into contact with a reptile,
    e. avoid any physical contact with others in child care settings who have diarrheal illness, and
    f. contact a health care provider (HCP) if they develop diarrheal illness, and have the individual or a parent or guardian explain to the HCP that reptiles are kept in an environment where the individual spends time.
7. Parents/guardians of immune compromised children in school age programs with reptiles should be informed of the risks to their children and be given a copy of this health care advisory so they can help their children to learn appropriate precautionary behaviors.

Office of Child Care Services Regulations:
Child care programs should review the OCCS licensing regulations listed below which have requirements that support this DPH advisory.

Family Child Care
8.08 Physical Facility Requirements
8.11 Supervision
8.12 Program Activities and Equipment
8.13 Comfort and Welfare of Children

Group Day Care
7.05 Required Policies
7.22 Supervision
7.23 Curriculum, Activities, and Equipment
7.25 Physical Facility Requirements

School Age Programs
7.05 Required Policies
7.33 Supervision
7.34 Curriculum, Activities, and Equipment
7.35 Physical Facility Requirements

For more information, contact:

MA Department of Public Health
Bureau of Communicable Disease Control
305 South Street
Jamaica Plain, MA 02130
Phone: (617) 983-6800
www.state.ma.us/dph

MA Department of Food and Agriculture
Bureau of Animal Health
251 Causeway Street, Suite 500
Boston, Ma 02114-2151
Phone: (617) 626-1700
www.massdfa.org

Max Care Health Line (800) 487-1119 Technical assistance from staff of Max Care: Maximizing the Health and Safety of Children in Out-of-Home Care the Healthy Child Care America project at the Department of Public Health.

Pet Industry Joint Advisory Council (PIJAC)
1220 19th Street, NW, Suite 400 Washington, DC 20036
http://petsforum.com/PIJAC/
This organization promotes the interests of the pet industry and develops aids to enhance humane and responsible care within the pet industry. Posters for safe reptile handling available called *Safe RHEX* (Reptile Handling EXcellence).

Reptile-Associated Salmonellosis -- Selected States, 1996-1998, Morbidity and Mortality Weekly Report, Centers for Disease Control and Prevention, November 12, 1999 / 48(44); 1009-1013

Public Health Fact Sheet — Hepatitis A

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

What is hepatitis A?

Hepatitis A, also called infectious hepatitis, is a contagious viral disease that makes the liver swell. It can take from 15 to 50 days to get sick after being exposed to the hepatitis A virus. The average is about a month.

What are the symptoms?

The symptoms depend on the person's age. Adults and teens are more likely to have the classic symptoms of fever, fatigue, loss of appetite, nausea, and jaundice. The signs of jaundice include dark brown urine and pale stools (feces). The whites of the eyes turn yellow, as can the skin of light-skinned people. Young children with hepatitis A often have mild flu-like symptoms, an upset stomach, or no symptoms at all. They seldom get jaundice. Hepatitis A symptoms last a week or two. Some adults can feel sick for as long as a few months, but this is rare.

How is hepatitis A spread?

The hepatitis A virus is usually found in the stools (feces) of infected people. The virus is most likely to be spread when people do not wash their hands after using the toilet or changing a diaper or soiled sheets, then touch their own mouths, prepare food for others, or touch others with their contaminated hands. This spreads the disease from person to person. It can also be spread by contaminated food (such as shellfish) or water.

The time of highest risk for spreading the virus to others is during the two weeks before symptoms begin. Most people stop being contagious one week after their symptoms start. Unlike other hepatitis viruses, hepatitis A virus is usually not spread by blood.

Who gets hepatitis A?

Anyone can. People who live with or have sex with people who have the disease are at high risk of catching it. Hepatitis A sometimes spreads among young children in day care because many are in diapers and cannot wash their own hands, and no one knows they have the disease because they have no symptoms. Spreading the virus among school-aged children is less common because they are more likely to have symptoms, and most have learned to wash their hands before eating and after using the toilet.

How is it diagnosed?

A blood test looks for antibodies that fight the virus. This blood test can tell the difference between a current infection and a past one. There are also blood tests to measure how much damage has been done to the liver, but these tests do not show what caused the damage.

How is hepatitis A treated?

There is no treatment for the disease, and most people do not need any. Problems such as retaining fluid and blood abnormalities are rare, but they can be treated.

How can you prevent hepatitis A?

- **Wash your hands.**

  Good handwashing protects you against hepatitis A and many other diseases. Always wash your hands thoroughly with soap and water before touching food or eating and after using the toilet or changing a diaper.

- **Cook shellfish.**

  Don’t eat raw or undercooked shellfish. Thorough cooking destroys the hepatitis A virus.

- **Get hepatitis A vaccine if:**
  - You plan to travel to or work in a country with high rates of hepatitis A (Mexico; all Central and South American countries; all African, Caribbean and Asian countries except Japan; and the countries of southern and eastern Europe).
  - You live in a community with high rates of hepatitis A (Native American reservations, Alaskan Native villages, Pacific Islander villages, and some Hispanic and religious communities).
  - You have chronic liver disease.
  - You have a bleeding disorder and get clotting factors.
  - You use street drugs of any kind.
  - You are a man who has sex with other men.
- **Get immune globulin (IG) if:**
  - You did not get the vaccine and become exposed to hepatitis A. IG works best if you get it within 2 weeks after being exposed.
  - You are allergic to the vaccine or chose not to get it, and you will be traveling in an area with high rates of hepatitis A.
- **Get immune globulin (IG) for your children if:**
  - They are under 2 years old and will be traveling or living with you in an area with high rates of hepatitis A. They will need IG because the vaccine cannot be given to children until they are 2 years old.

Will IG make you immune to hepatitis A?

No. IG only partly protects you against hepatitis A virus for 3 to 5 months. You can still get the disease and spread it to others, but IG can make your symptoms milder. If you think you might be exposed again, you should talk to your doctor about getting hepatitis A vaccine, which protects for many years.

Are there any health regulations for people with hepatitis A?

Yes. Because hepatitis A can easily be spread to other people, doctors are required by law to report cases of hepatitis A to the local board of health. To protect the public, workers who have hepatitis A cannot work in any food business until their fevers are completely gone and a week has passed since their symptoms started. Coworkers may need to get IG. The term “food business” includes restaurants, sandwich shops, hospital kitchens, dairy or food-processing plants, and any other place where workers handle food or drinks, give oral care (such as brushing people's teeth), or dispense medicines.

Where can you get more information?

- Your doctor, nurse or clinic
- Your local board of health (listed in the phone book under local government)
- The Massachusetts Department of Public Health Division of Epidemiology and Immunization at (617) 983-6800 or on the MDPH website at http://www.magnet.state.ma.us/dph/

Bureau of Communicable Disease Control

- HIV/AIDS Surveillance
- Epidemiology & Immunization
- Tuberculosis Prevention & Control
- STD Prevention
- Refugee & Immigrant Health

Related Sites

- CDC Division of HIV/AIDS Prevention
- HIV/AIDS Bureau
- STD/HIV Prevention Training Center of NE

Important Numbers

National STD/AIDS Hotline	English (800) 342-AIDS Spanish (800) 344-7432
AIDS Action (MA)	(800) 235-2331
American Social Health Association (ASHA)	(800) 227-8922

Contact Information

Bureau of Communicable Disease Control
State Laboratory Institute
305 South Street
Jamaica Plain, MA 02130

Paul Etkind, DrPh, MPH
Directory, STD Prevention

Tel	(866) 749-7122
Fax	(617) 983-6962

Public Health Fact Sheet - Hepatitis B

What is hepatitis B?
Hepatitis B is a serious viral disease, and is responsible for an estimated 4,000 to 5,000 deaths each year in the United States due to liver damage (cirrhosis) and liver cancer. Most people who get the disease recover from it and can never get it again. However, about 10% of the people who get the disease will carry the virus for a long time and during this time can pass it on to others. Symptoms of hepatitis B infection include weakness, feeling ill, loss of appetite, fever, headaches, yellow skin and eyes (jaundice), dark urine, and pain in muscles, joints and the stomach. Long-term or chronic illness can lead to liver damage, liver cancer and death. Symptoms can begin as soon as six weeks or as long as 6 months after contact with the virus. Many people have mild symptoms and some do not notice symptoms at all.

Is hepatitis B dangerous?
Yes. Most adults (about 90%) who get it will get better within six months, but some will carry the virus for a long time (chronic carriers). Infants born to infected mothers often become chronic carriers. These carriers can develop chronic liver problems, which can lead to liver cancer, cirrhosis (liver failure), and death. Carriers have the virus in their body fluids and can infect their families, housemates, and sex partners. Each year in the United States, 80,000 people develop new hepatitis B infections, and as many as 11,000 of them are hospitalized.

How is hepatitis B spread?
Hepatitis B virus (HBV) is spread by contact with the blood, semen, vaginal fluids, or certain other body fluids of an infected person. When these fluids enter a person's blood through mucous membranes (such as those in the mouth or sex organs) or breaks in the skin, the virus can also enter. The virus can be spread by having sex without a condom or by sharing needles (for shooting drugs, ear or body piercing, or tattooing) with an infected person. Health care workers who get stuck by used needles can get infected. Pregnant women who have the virus in their blood can pass it to their babies while giving birth. Sharing a toothbrush, razor, or anything else that might have blood on it can also spread the virus. HBV is 100 times more contagious than HIV. About 1 of every 3 people infected with the hepatitis B virus in the U.S. does not know where they got their infection.

Can it be treated?
Most people with hepatitis B get better without treatment. Some forms of chronic hepatitis B infection can be treated with a drug called interferon.

How can you prevent hepatitis B?
The best way to prevent hepatitis B is to avoid contact with the body fluids of infected people. This means using condoms when you have sex, wearing latex gloves if you handle body fluids such as blood, and never sharing a needle, toothbrush, razor or anything else that might have blood on it.

Protect your children by having them vaccinated with 3 doses of hepatitis B vaccine before they are 18 months old. All three doses are needed for full and lasting immunity. People who have not had the vaccine and become exposed to the virus should get a shot called HBIG, as well as the vaccine. HBIG will protect you right away, but it will only work for a few months. After three doses, hepatitis B vaccine protects most people for at least 15 years. Adolescents 11 to 15 years of age may need only two doses of hepatitis B vaccine, separated by 4-6 months. Ask your health care provider for details.

Women should be tested for hepatitis B every time they get pregnant. If they have the virus, their infants will need HBIG and vaccine soon after they are born to protect them against the disease. The babies will also need two more doses of the vaccine when they are one month and six months old.

Who should get hepatitis B vaccine?

- All newborns and children through the age of 18
- Adults over 18 who are at risk

Adults at risk include people who have more than one sex partner in 6 months, men who have sex with men, sex contacts of infected people, illegal injection drug users, health care and public safety workers who might be exposed to infected blood or body fluids, household contacts of persons with chronic HBV infection, and hemodialysis patients. If you are uncertain whether you are at risk, ask your doctor or nurse.

Is hepatitis B vaccine safe?
Yes, it is safe for most people. However, a vaccine, like any medicine, is capable of causing serious problems such as severe allergic reactions, which are extremely rare with any vaccine. However, the most common problems are soreness where the shot was given or fever. Getting hepatitis B vaccine is much safer than getting hepatitis B disease, and most people do not have any problems with it.

Who should not get hepatitis B vaccine?

- People who have had a serious reaction to baker's yeast (the kind used for making bread), other vaccine component, or a previous dose of the vaccine should not get hepatitis B vaccine.
- People who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover before getting hepatitis B vaccine.

Is the hepatitis B vaccine required for anyone?
In Massachusetts, the hepatitis B vaccine is required for all children who attend licensed child care or preschool, kindergarten-grade 5, and grades 7-9. This requirement will be phased in to include all grades, K through 12 by 2004. In addition, hepatitis B vaccine is currently required for all freshmen and health science students attending college. This requirement will be phased in to include all sophomores in 2002, juniors in 2003, seniors in 2004, and graduate students in 2005. OSHA requires private employers to offer hepatitis B vaccine to workers who might come into contact with blood, blood products, or other body fluids on the job.

Are there other kinds of hepatitis?
Yes. There are many kinds of hepatitis caused by viruses. The symptoms are so alike that blood tests are needed to tell them apart, but they are not all spread the same way. In the U.S., the most common types of hepatitis are A, B and C. Types B and C are spread through blood and other body fluids, but type A is spread through contaminated food, water, or stool (feces). Fact sheets on hepatitis A and hepatitis C are available from the Department of Public Health.

Where can you get more information?

- **Your doctor, nurse or clinic**
- **Your local board of health** (listed in the phone book under local government)
- **The Massachusetts Department of Public Health**, Immunization Program at **(617) 983-6800**, toll-free at

1-888-658-2850, on the MDPH web site at http://www.state.ma.us/dph/, or at the MDPH Regional offices at:

Central Region, West Boylston (508) 792-7880Metro/Boston Region*, Jamaica Plain

(617) 983-6860Northeast Region, Tewksbury (978) 851-7261Southeast Region, Lakeville (508) 947-1231Western Region, Amherst (413) 545-6600

- **Occupational Health and Safety Administration** (OSHA)Region I Office (617) 565-9860

* Boston providers/residents may also call the Boston Health Commission at (617) 534-5611.

September 2001

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

What is hepatitis C?

Hepatitis C is a virus (a type of germ) that causes liver disease. The hepatitis C virus is found in the blood and liver of people with hepatitis C infection.

How is hepatitis C spread?

The virus is spread primarily through blood. People most at risk are those who have had a blood transfusion or an organ transplant before 1992, or people who use or have used needles contaminated by blood (for example, the injection of drugs). Since July 1992, the blood supply has been carefully checked for this virus and the blood supply is considered to be safe.

The hepatitis C virus can be spread whenever blood (or fluids containing blood) come in contact with an opening on the skin or other tissues. This can occur even when these openings cannot be seen. Hepatitis C virus can also be transmitted by sexual contact, but this does not happen as easily as the spread of HIV, the virus that causes AIDS.

The hepatitis C virus is not spread by casual contact like hugging, sneezing, coughing, or sharing food and drinks. You can not get hepatitis C by donating blood.

How serious is hepatitis C?

Hepatitis C infection can be very serious. Most people who become infected will carry the virus for the rest of their lives. Some of these people will develop liver damage and feel very sick. Other people may feel healthy for many years after being diagnosed with hepatitis C infection. This virus can eventually cause cirrhosis (scarring of the liver) and/or liver cancer in some infected people. While most people will not develop liver failure or cancer with hepatitis C, we cannot tell who will or will not have these problems.

Who is at risk of getting hepatitis C?

People are at risk for developing hepatitis C infection if they:

- have used street drugs or shared needles, even just once;
- have received a blood transfusion, blood products, or an organ transplant before July 1992;
- have had many sexual partners, especially if they did not use condoms;
- are health care workers (like doctors or nurses) who may be exposed to blood or needles;
- are babies born to mothers who have hepatitis C; or
- have been on kidney dialysis.

Is there a treatment for hepatitis C?

A drug called interferon may sometimes be used to treat hepatitis C infection. It is usually used in combination with other drugs, such as Ribavirin. People diagnosed with hepatitis C infection should not drink any alcohol or take certain medicines that can cause liver damage. It is recommended that persons infected with hepatitis C be vaccinated for hepatitis A and hepatitis B, two other viruses which cause liver damage if they are at risk for those infections. Antibiotics (medicine to fight an infection from bacteria) do not work against the hepatitis C virus. Ask your doctor about treatment options and steps you can take to protect your liver.

How can hepatitis C be prevented?

There is no vaccine for hepatitis C. The best way to keep from getting the hepatitis C virus is to avoid any contact with blood. This includes not sharing needles, razors, or toothbrushes. Blood banks now screen donated blood for hepatitis C virus, so your risk of getting infected from a blood transfusion is extremely low. You can also get hepatitis C from sex with an infected partner; using a condom may reduce your risk of becoming infected.

To prevent the spread of hepatitis C:

- If you shoot drugs, never share works with anyone. Don't share cocaine or other snorting straws, since these can get blood on them too. Find out about treatment programs that can help you stop using drugs.
- Use a latex condom every time you have sex.
- Only get tattoos or body piercings from places using sterile equipment.
- Health care workers and people who clean up in hospitals or places where needles or sharps are used should follow standard (universal) precautions for every patient.
- If you have hepatitis C, don't share razors or toothbrushes.
- If you have hepatitis C, don't donate blood, sperm, or organs.

What about other kinds of hepatitis?

There are several different kinds of hepatitis viruses. If you have had one type, you can still get any of the others. The hepatitis A virus is spread by feces (stool) through close personal contact or contaminated food and water. Even a very small or not visible amount of feces can carry this virus. There is a vaccine to prevent hepatitis A infection. The hepatitis B virus is spread through blood and body fluids, like semen. There is also a vaccine to protect you from hepatitis B infection. If you have hepatitis C, ask your doctor about getting vaccinated for hepatitis A and B. Blood tests can be done to see if you have been exposed to the different types of hepatitis viruses.

Where can you get more information?

- Call your doctor, nurse, or health clinic
- Call your local board of health, listed in the phone book under government
- Contact:
  - The Massachusetts Department of Public Health (MDPH)
    Division of Epidemiology and Immunization, at
    (617) 983-6800, or visit the MDPH hepatitis C website at
    http://www.masshepc.org or the MDPH general website at: http://www.magnet.state.ma.us/dph/
  - The Hepatitis Hotline, at
    The Centers for Disease Control and Prevention (CDC), at
    1-888-4HEPCDC (1-888-443-7232) or the CDC website at:
    http://www.cdc.gov/ncidod/diseases/hepatitis/hepatitis.htm

October 1999

PUBLIC HEALTH FACT SHEET

Hib

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

What is Hib disease?

Haemophilus influenzae type B (Hib) is a serious disease caused by bacteria. It usually affects young children under the age of 5. Before Hib vaccine, Hib disease was the leading cause of bacterial meningitis among children. Hib meningitis can cause permanent brain damage. Hib can also cause swelling in the airways and lead to suffocation. Hib can infect the lungs, blood, joints, bones and the thin membrane that covers the heart.

Is Hib disease dangerous?

Yes. Before Hib vaccine, each year about 20,000 children in the United States under 5 years old got severe Hib disease and nearly 1,000 of them died.

How is Hib disease spread?

Your child can get Hib disease by being around other children or adults who may have the bacteria and not know it. It is spread by a germ from person to person. If the germs stay in the nose and throat, children probably won't get sick. But sometimes the germs spread into a child's lungs or bloodstream and then Hib can cause serious problems.

Who gets Hib disease?

Black, Latino, Native American, and poor children are at higher risk of getting Hib. Children younger than 6 who attend day care seem to be at higher risk, too. Children and adults with sickle cell anemia, no spleen,weakened immune systems or on drugs or treatments that weaken the immune system, also are at higher risk for Hib. Hib is most common in infants, but nearly half the cases occur in children age 12 months or older.

How can you prevent Hib disease?

Protect your children by having them vaccinated. All infants should get a series of four Hib shots starting when they are 2 months old. The rest of the shots are given at 4, 6, and 15 months. There are different schedules for babies between 7 and 15 months old who missed the shots when they were younger. Children 15 months through 4 years of age need at least 1 dose. Children 5 years of age and older, and adults with the special health problems described above, also need at least 1 dose.

Is the Hib vaccine safe?

Yes, it is safe for most people, but like any vaccine it can sometimes cause mild side effects. About one of every 4 children who get Hib vaccine will have a little redness or swelling where the shot was given. Up to 5 in 100 children will run a fever of 101° F or higher. These reactions are not serious and usually go away in a few days. More severe reactions can happen, but they are rare.

Who should not get Hib vaccine?

- People who have ever had a serious reaction to a previous dose of Hib vaccine
- Children less than 6 weeks of age
- People who are moderately or severely ill at the time the shot is scheduled should usually wait until they recover

Where can you get more information?

- **Your doctor, nurse or clinic**
- **Your local board of health** (listed in the phone book under local government)
- **The Massachusetts Department of Public Health** (MDPH) Immunization Program **(617) 983-6800** of toll-free at **1-888-658-2850** or on the MDPH website at **http://www.state.ma.us/dph/**, or the regional office of the MDPH immunization program:

Central Immunization Office, West Boylston	(508) 792-7880
Metro/Boston* Immunization Office, Jamaica Plain	(617) 983-6860
Northeast Immunization Office, Tewksbury	(978) 851-7261
Southeast Immunization Office, Lakeville	(508) 947-1231
Western Immunization Office, Amherst	(413) 545-6600

*For Boston providers/residents, you may also call the Boston Health Commission at (617) 534-5611.

November 1999

PUBLIC HEALTH FACT SHEET

Cytomegalovirus (CMV)

Massachusetts Department of Public Health, 150 Tremont Street, Boston, MA 02111, (617) 727-0049, Dr. Deborah Prothrow-Stith, Commissioner

What is cytomegalovirus (CMV)?

CMV is a virus that can cause a contagious but mild disease commonly found in young children. In most cases the infection causes no symptoms at all.

How common are CMV infections?

Many people have caught the virus by the time they reach young adulthood. In the United States, at least 40% of all 35-year-old adults have antibodies (virus fighters) against cytomegalovirus in their blood, which means they were once infected.

What are the symptoms of CMV infection?

Most children and adults have no symptoms at all and are not harmed by the virus. Some people may develop symptoms similar to mononucleosis. These symptoms include fever, sore throat, fatigue and swollen glands.

Why is CMV a public health problem?

While healthy people rarely show symptoms, those whose immune systems do not work properly (because of chronic illnesses or organ transplants, for example) may be severely affected by CMV infection. In these people the infection can cause fever, loss of appetite, hepatitis or pneumonia. In some cases the infection can be very severe or even fatal.

CMV can also be dangerous when a pregnant woman is infected with the virus. CMV can cause a variety of disabilities in children whose mothers become infected for the first time during pregnancy. These disabilities may include mental retardation, hearing loss and developmental delay.

How is CMV infection diagnosed?

Diagnosis is based on finding the virus in urine, saliva, breast milk, cervical secretions or semen. There are also blood tests that can show newly formed antibodies to CMV.

How is CMV infection spread?

The virus can be found in the urine, saliva, breast milk, cervical secretions or semen from a person infected with CMV. The virus is not highly contagious, but it can be spread during sex or when infected body fluids touch another person's mucous membranes (inside the nose, mouth, eyes, etc.). Newly infected women can spread the virus to their infants during pregnancy, birth or breastfeeding.

How long is someone with CMV contagious?

People with CMV are contagious as long as they excrete or "shed" the virus in body fluids. CMV can be shed in urine or saliva for many months, sometimes for years. An infant who is infected during the first month of life may shed the virus for as long as five or six years. Newly infected adults appear to shed CMV for shorter periods.

How can you protect yourself against CMV infection?

There is no vaccine against CMV and most infected people have no symptoms. Therefore, careful handwashing with soap and water after diaper changes, toilet care or contact with anyone's body fluids is important to prevent infection. Women of childbearing age who work in hospitals or preschools (especially those with special-needs students) should strictly follow standard measures of personal hygiene, including handwashing, because they are likely to have contact with children who are shedding the virus.

Should children with CMV infections be kept out of day care?

No, children who are known to have CMV infections do not need to be kept out of day care. CMV infections are so common among children that others at the center probably also have CMV but do not have symptoms.

How can you keep CMV from spreading in your preschool or day-care center?

The best prevention is to make sure all staff wash their hands after contact with secretions from any child. Since CMV is shed in urine and saliva, clothes contaminated with these fluids should be bagged separately and sent home for washing. Do not allow children to share food or mouthed objects. At least once a day, wash and disinfect any toys children put in their mouths. Use care when handling and disposing of diapers, and wash hands thoroughly with soap and water after diaper changes and toilet care.

Can CMV infections be treated?

Antibiotics cannot be used to treat CMV infections because they are caused by viruses, but treatment is not usually needed because symptoms are mild or absent. Supportive treatment is available for people with weakened immune systems who may be severely affected by CMV infection.

Where can I get more information about CMV?

Your personal doctor

Your local board of health
Listed in the telephone book under local government

The Massachusetts Department of Public Health
Division of Communicable Disease Control (617) 522-3700

October 1988